(C-1865-1945)

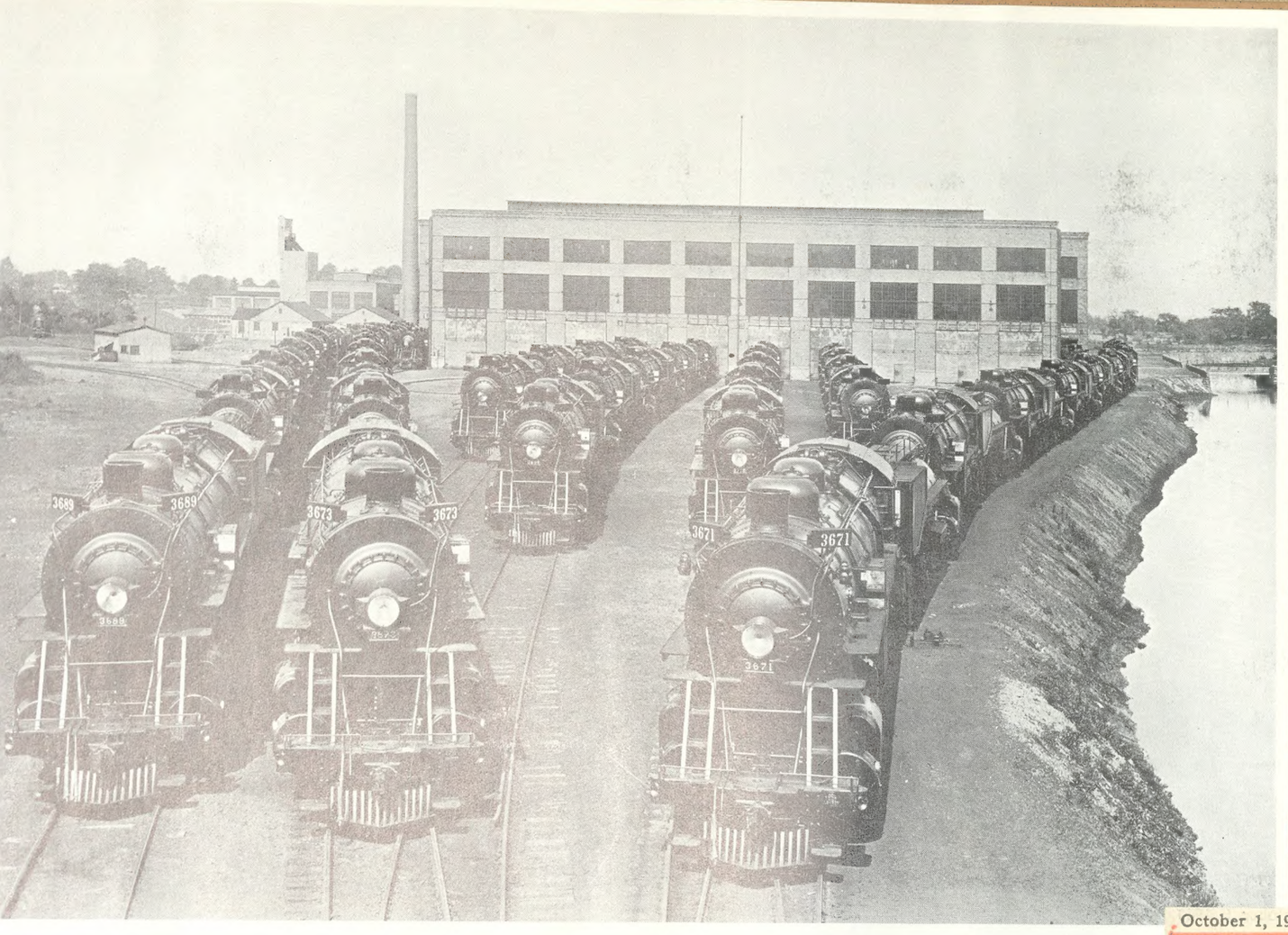
14

PLEASE use care in turning pages

SOUTHERN PACIFIC LINES

Santa Fe

UNION PACIFIC THE OVERLAND ROUTE



Fifty 2-10-2 Type Locomotives for the Southern Pacific Lines Ready for Shipment from the Eddystone Plant of The Baldwin Locomotive Works.

THE BALDWIN LOCOMOTIVE WORKS

COVER — Engine 1251 — Balanced Compound Pacific — Built 1905

The Atchison, Topeka & Santa Fe Railway

mber
56 :
06 :

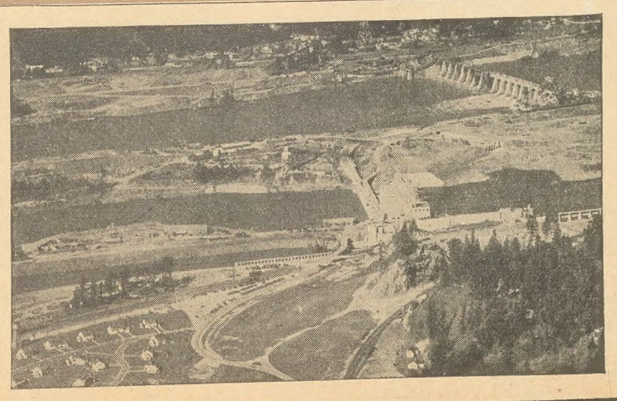
BONNEVILLE DAM

● The giant Bonneville project for navigation and hydro-electric development is but a short distance from Portland, Ore.—42 miles. It is located just at the head of tide water on the Columbia River. With a moderate amount of work on the channel between the mouth of the Willamette River and Bonneville, vessels in the deep sea trade of the world will be able to proceed not only to the Dam, but on through its lock to The Dalles. Construction work is in full progress.

● Splendid car window views of the work on this great Dam may be had by passengers to and from Portland on trains of the

UNION PACIFIC

Bonneville Dam, Columbia River, Oregon (shown at right)



Santa Fe

Corrected to
September 22, 1941
(Subject to change)

Transcontinental trains

Swift • Sure • Comfortable

There's all this to enjoy on your trip to or from

california

via Santa Fe

Grand Canyon

Direct to the Canyon's rim goes Santa Fe, only railroad entering Grand Canyon National Park.

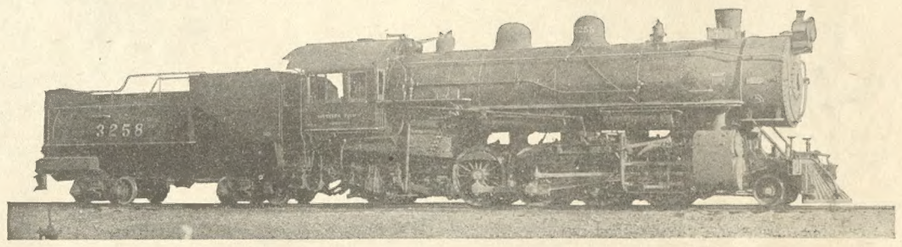
Indian-detours

1 to 3 day motor side-trips exploring the Spanish-Indian area around Old Santa Fé, New Mexico.

Dude ranches

There are more than 80 of them along the Santa Fe, in the sunny, healthful, out-of-doors Southwest. Ask for Santa Fe's beautiful free dude-ranch booklet.

ANY SANTA FE REPRESENTATIVE WILL GLADLY HELP YOU DEVELOP YOUR WESTERN VACATION PLANS



SOUTHERN PACIFIC 3250-3269 1914

DESIGN AND MATERIAL

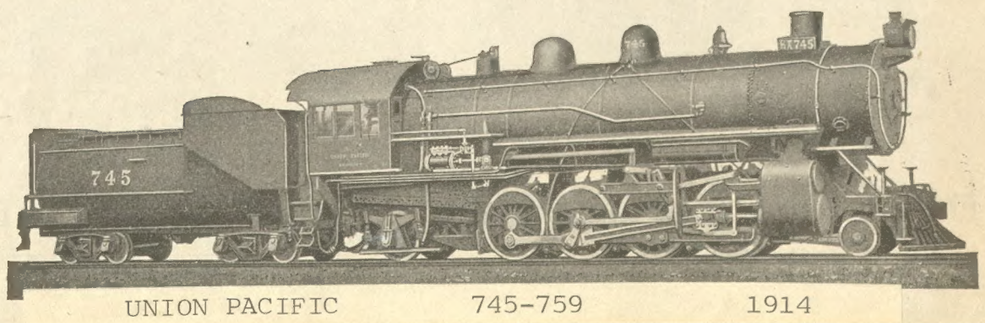
Continuous service demands that all details of the locomotive be properly proportioned and all materials carefully selected.

Lima's engineers have spent lifetimes in this work.

Lima is always ready to co-operate with the railroad company's engineers with a view to producing designs of maximum efficiency for particular services.

Lima Locomotive Works, Incorporated

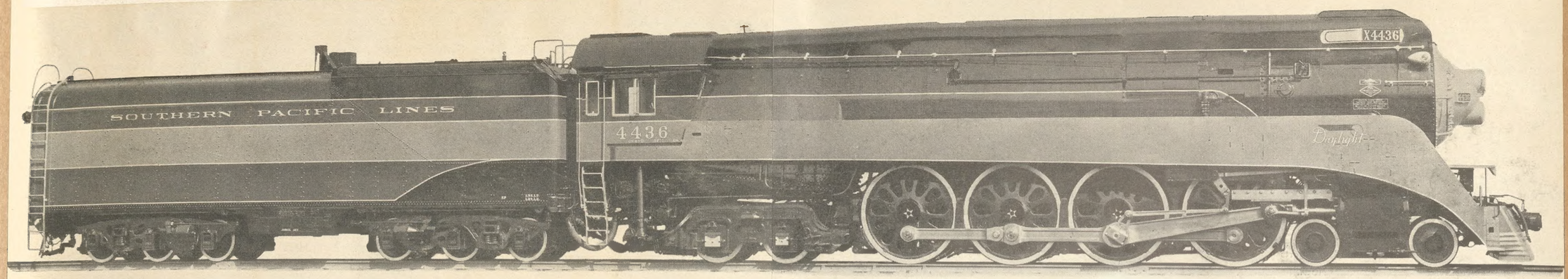
Lima, Ohio **30 Church Street, N. Y. City**



UNION PACIFIC 745-759 1914

Road Nos 4430-4449 Class GS-4 Builder Lima
Con Nos 7798-7817 Order No 1152 Del Apr-May 1941

1



Southern Pacific Lines				
Weight in Working Order, Pounds				
On Drivers	Eng. Truck	Trailer Truck	Total Engine	Tender & 3 Capacity Loaded
275,700	81,300	118,000	475,000	313,730
Wheel Base			Tractive Effort	
Driving	Engine	Eng. & Tender	Main Cylinders	With Booster
21'—6"	47'—8"	96'—3"	64,760	79,660
Boiler		Cylinders		Driving Wheel
Diameter	Pressure	Diameter	Stroke	Diameter
86" O. D. Front	300 lbs.	25½"	32"	80"

SOUTHERN PACIFIC LINES

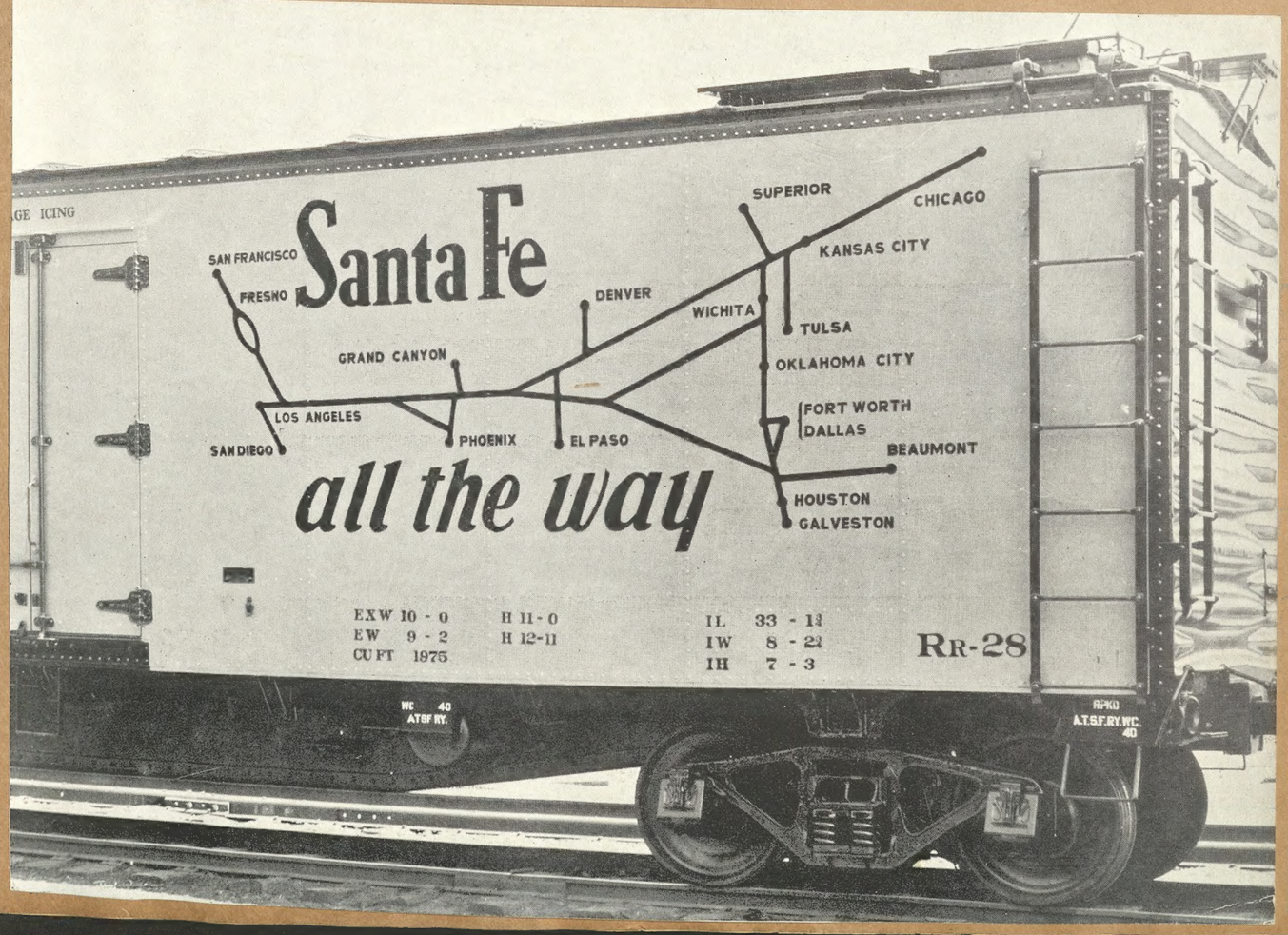
LIMA LOCOMOTIVE WORKS INCORPORATED

20 new *Daylights* being delivered by LIMA to the Southern Pacific

These twenty new and improved DAYLIGHTS bring the total fleet up to forty of this type of Super-Power Streamlined Steam Locomotives that have been built by Lima for the Southern Pacific. The Locomotives will be used to power the new "Overnight" passenger trains that the Railroad has inaugurated between San Francisco and Los Angeles as well as the famous "Daylight" trains between the two cities. In addition to passenger service, these Locomotives will also be used to power the overnight "Hotshot" freight that the Southern Pacific has so successfully been using to reclaim LCL freight.

The Southern Pacific has recently placed an additional order for ten more of these locomotives which will bring the DAYLIGHT fleet up to fifty high-speed Super-Power Lima-built Locomotives.

LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO



DEDICATION

to those hardy souls who were on the payroll of the Southern Pacific Lines, the Santa Fe or the Union Pacific System in those exciting days when steam power ruled the roster.

This volume, Book 14, contains:-

	Clips	Pages
Intro	32	1-5
So. Pac.	692	6-104
AT&SF	409	105-164
Un. Pac.	479	165-235
	1,612	235

Donated to the Railway & Locomotive Historical Society.

October 27, 1986

LIBRARY OF F. RAY McKNIGHT

NOTE

Where the builders construction number (c/n) is shown it is for the engine illustrated. Clippings initialed "OKM" are those salvaged from a former scrapbook of my father.

F. RAY McKNIGHT
8833 S. W. HAZELVERN WAY
PORTLAND, OR 97223

November 6, 1868

CENTRAL PACIFIC RAILROAD
LOCOMOTIVE ENGINES

No.	Names	Makers	No. of Drivers	Diam. of Drivers	Diam. of Cylinders	Length of Stroke
				Feet	Inches	Inches
1	Gov. Stanford	R. Norris & Sons	4	4.6	15	22
2	Pacific	MasonManufact'g Co.	4	5	16	24
3	C.P. Huntington	Danforth, Cooke & Co.	2	4.6	11	15
4	T. D. Judah	" " "	2	4.6	11	15
5	Atlantic	Mason Manufact'g Co.	4	5	15	22
6	Conness	" " "	6	4	17	24
7	Sargent	Booth & Co., S. F.	4	5	16	24
8	Nevada	Danforth, Cooke & Co.	6	4	18	22
9	Utah	" " "	6	4	18	22
10	Humboldt	" " "	6	4	18	22
11	Arctic	Mason Manufact'g Co.	4	5	15	22
12	Truckee	" " "	6	4	17	24
13	Hercules	Danforth, Cooke & Co.	6	4	18	22
14	Oneonta	" " "	6	4	18	22
15	Washoe	" " "	6	4	18	22
16	Owyhee	Mason Manufact'g Co.	6	4	17	24
17	Idaho	" " "	6	4	17	24
18	Piute	Danforth, Cooke & Co.	6	4	18	22
19	Carson	" " "	6	4	18	22
20	Amazon	McKay & Aldus	6	4.6	18	24
21	Tamaroo	" "	6	4.6	18	24
22	Auburn	" "	6	4.6	18	24
23	Mono	" "	6	4.6	18	24
24	Montana	" "	6	4.6	18	24
25	Yuba	" "	6	4.6	18	24
26	Samson	Danforth, Cooke & Co.	6	3.9	17	22
27	Goliah	" " "	6	3.9	17	22
28	Gold Run	McKay & Aldus	4	5	16	24
29	Antelope	" "	4	5	16	24
30	Tahoe	R. Norris & Sons	4	5	16	22
31	Klamath	" "	4	5	16	22
32	Ajax	New Jersey Loco. Co.	6	4	16	24
33	Achilles	" " "	6	4	16	24
34	El Dorado	R. Norris & Sons	4	5.6	16	24
35	Boise	" "	4	5.6	16	24
36	Shoshone	" "	4	5	16	22
37	Mohave	" "	4	5	16	22
38	Ogdensburg	McKay & Aldus	6	4.6	18	24
39	Malone	" "	6	4.6	18	24
40	Solano	R. Norris & Sons	4	4.6	14	24
41	Stanislaus	" "	4	4.6	14	24
42	Tuolumne	" "	4	5	14	24
43	Tulare	" "	4	5	14	24
44	Colossus	McKay & Aldus	6	4.6	18	24
45	Majestic	" "	6	4.6	18	24
46	Unicorn	" "	6	4	17	22
47	Griffin	" "	6	4	17	22
48	Toiyabe	Grant Loco. Co.	6	4	17	22
49	Toquima	" "	6	4	17	22
50	Champion	McKay & Aldus	4	5	16	24
51	Climax	" "	4	5	16	24
52	Tip Top	" "	4	5	16	24
53	Summit	" "	4	5	16	24
54	Red Deer	" "	4	5	16	24
55	Black Deer	" "	4	5	16	24
56	Grizzly	Schenectady Loco. Wk's	6	4	18	24
57	Bison	" " "	6	4	18	24
58	Placer	" " "	6	4	18	24
59	Pluto	" " "	6	4	18	24
60	Jupiter	" " "	4	5	16	24
61	Storm	" " "	4	5	16	24
62	Whirlwind	Schenectady Loco. Wk's	4	5	16	24
63	Leviathan	" " "	4	5	16	24
64	Emigrant	McKay & Aldus	4	5	16	24
65	Mikado	" "	4	5	16	24
66	Tycoon	" "	4	5	16	24
67	Hector	" "	4	5	16	24
68	Peoquop	" "	4	5	16	24
69	Vulcan	" "	6	4.6	18	24
70	Saturn	" "	6	4.6	18	24
71	Vesuvius	" "	6	4.6	18	24
72	Niagara	Danforth Loco. Works	6	4.6	18	24
73	Terrible	" " "	6	4.6	18	24
74	Dragon	" " "	6	4.6	18	24
75	Growler	" " "	6	4.6	18	24
76	Carrier	R. Island Loco. Works	4	5	16	24
77	Confucius	" " "	4	5	16	24
78	Mars	" " "	4	5	16	24
79	Apollo	" " "	4	5	16	24
80	Phil Sheridan	Danforth Loco. Works	4	5	16	24
81	U. S. Grant	" " "	4	5	16	24
82	Buffalo	Rogers Loco. Works	6	4.6	18	24
83	Mountaineer	" " "	6	4.6	18	24
84	Gazelle	Schenectady Loco. Wk's	4	5	16	24
85	White Bear	Rogers Loco. Works	6	4.6	18	24
86	Gorilla	" " "	6	4.6	18	24
87	Tempest	" " "	6	4.6	18	24
88	Hurricane	R. Island Loco. Works	6	4.6	18	24
89	Giant	" " "	6	4.6	18	24
90	Gladiator	" " "	6	4.6	18	24
91	Tiger	" " "	6	4.6	18	24
92	Verdi	" " "	6	4.6	18	24
93	Oronoco	R. Norris & Sons	4	5	14	24
94	Eclipse	McKay & Aldus	4	5	15	24
95	Driver	" "	4	5	15	24
96	Clipper	" "	4	5	15	24
97	Racer	" "	4	5	15	24
98	Rattler	" "	4	5	15	24
99	Ranger	" "	4	5	15	24
100	Rover	" "	4	5	15	24
101	Hunter	" "	4	5	15	24
102	Runner	Rogers Loco. Works	4	4.8	15	22
103	Rusher	" " "	4	4.8	15	22
104	Rambler	" " "	4	4.8	15	22
105	Roller	" " "	4	4.8	15	22
106	Pacer	" " "	4	4.8	15	22
107	Courser	" " "	4	4.8	15	22
108	Stager	" " "	4	4.8	15	22
109	Flier	" " "	4	4.8	15	22
110	Fire Fly	" " "	4	4.8	15	22
111	Chamois	" " "	4	4.8	15	22
112	Hawk	Danforth Loco. Works	4	4.8	15	22
113	Falcon	" " "	4	4.8	15	22
114	Heron	" " "	4	4.8	15	22
115	Eagle	" " "	4	4.8	15	22
116	White Eagle	" " "	4	4.8	15	22
117	Red Eagle	" " "	4	4.8	15	22
118	Grey Eagle	" " "	4	4.8	15	22
119	Golden Eagle	" " "	4	4.8	15	22
120	Bald Eagle	" " "	4	4.8	15	22
121	American Eagle	" " "	4	4.8	15	22
122	Willamette	Globe Works	4	5	16	24
123	Geo. L. Woods	Globe Works	4	5	16	24
124	Umpqua	" "	4	5	16	24
125	J. R. Moores	" "	4	5	16	24
126	Swiftsure	McKay & Aldus	4	4.8	15	22
127	Mercury	" "	4	4.8	15	22
128	Herald	" "	4	4.8	15	22
129	Fleetfoot	" "	4	4.8	15	22
130	Favorite	" "	4	4.8	15	22
131	Greyhound	R. Island Loco. Works	4	4.8	15	22
132	Deerhound	" " "	4	4.8	15	22
133	Foxhound	" " "	4	4.8	15	22
134	Trapper	" " "	4	4.8	15	22
135	Peeler	" " "	4	4.8	15	22
136	Swallow	" " "	4	5	16	24
137	Lark	" " "	4	5	16	24
138	Blue Bird	Schenectady Loco. Wk's	4	4.8	15	22
139	Blue Jay	" " "	4	4.8	15	22
140	Ostrich	" " "	4	4.8	15	22
141	Magpie	" " "	4	4.8	15	22
142	Raven	" " "	4	4.8	15	22
143	Swan	" " "	4	4.8	15	22
144	Crane	" " "	4	4.8	15	22
145	Dart	" " "	4	4.8	15	22
146	Arrow	" " "	4	4.8	15	22
147	Reindeer	" " "	4	4.8	15	22
148	Red Fox	" " "	4	5	16	24
149	Black Fox	" " "	4	5	16	24
150	Grey Fox	" " "	4	5	16	24
151	Yellow Fox	" " "	4	5	16	24
152	White Fox	" " "	4	5	16	24
153	Young America	R. Island Loco. Works	4	5	16	24
154	Charmer	" " "	4	5	16	24
155	Sunbeam	" " "	4	5	16	24
156	Success	McKay & Aldus	4	5	16	24
157	Excelsior	" "	4	5	16	24
158	Eureka	" "	4	5	16	24
159	Diana	" "	4	5	16	24
160	Sultana	" "	4	5	16	24
161	Juno	" "	4	5	16	24
162	Flash	" "	4	5	16	24
163	Fancy	" "	4	5	16	24

WESTERN PACIFIC R. R. ENGINES

	Names	Makers	No. of Drivers	Diam. of Drivers	Diam. of Cylinders	Length of Stroke
				Feet	Inches	Inches
A	Sacramento	Wm. Mason	4	5	15	22
B	San Jose	" "	4	5	15	22
C	Stockton	Baldwin	4	5	14	22
D	Santa Clara	"	4	5	14	22
E	San Mateo	"	4	5	14	22
F	Merced	Norris, Lancaster	4	5½	16½	24
G	Mariposa	" "	4	5½	16½	24
H	Sonoma	" "	4	5½	16½	24
I	Industry	" "	4	5	16	24
J	Wm. Penn	" "	2	4½	10	18

Copy of a Printed Sheet Issued November 6, 1868, Listing the Locomotives Used in Building the Central Pacific Railroad
The Western Pacific Railroad, whose locomotives are also listed, was a line from Sacramento to Oakland which was absorbed by the Central Pacific about 1866

20 BALDWIN LOCOMOTIVES

Include these wonderlands in Santa Fe trips to or from

California

Grand Canyon . . . Santa Fe, the only railroad entering Grand Canyon National Park, provides *daily* year-round Pullman service *direct* to the South Rim.

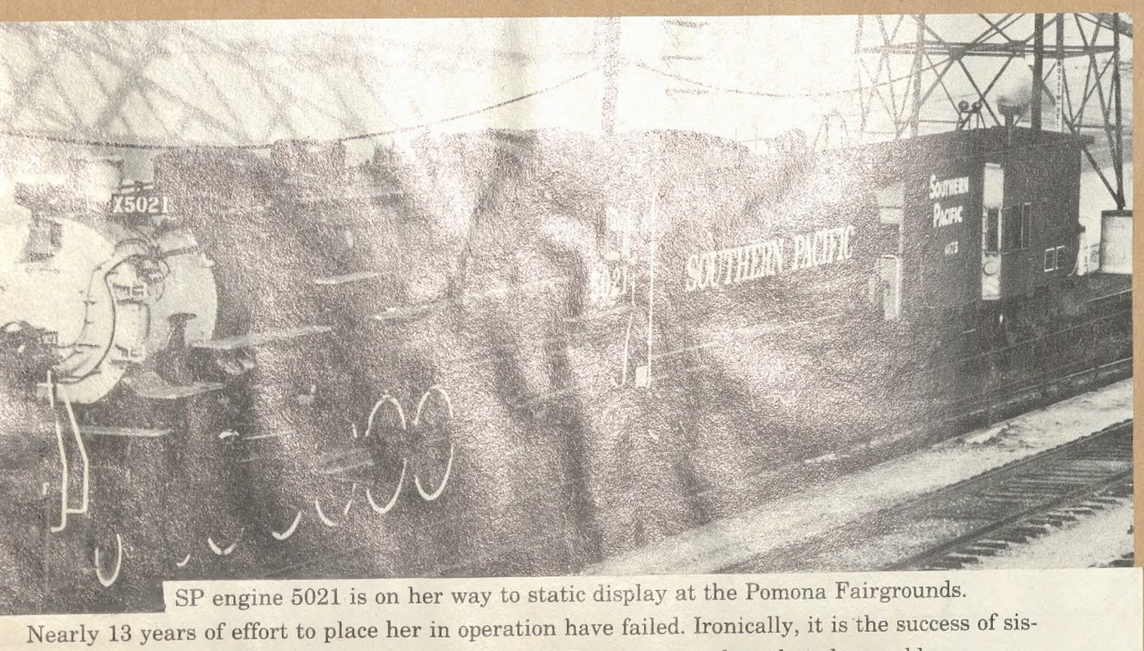
Carlsbad Caverns . . . a Santa Fe Pullman takes passengers *direct* to Carlsbad, New Mexico, nearest rail approach to this world-famous underground fairyland. Costs are low for side trip rail fare and all-expense tour.

Indian-detours . . . motor explorations to age-old Indian Pueblos and prehistoric cliff dwellings 'round Old Santa Fe.

October 30, 1949 to January 29, 1950

Union Pacific Historical Museum

- A most complete and intensely interesting record of western pioneer and Union Pacific Railroad construction days, is on display in a museum on the first floor of the Union Pacific Bldg., 1416 Dodge Street, Omaha.
- It contains relics, souvenirs, trophies, animal mountings, firearms, photographs, valuable documents and numerous other articles, the history of which extends over a period of 100 years. Travelers with a little time to spare between train connections in Omaha could spend it to rare advantage in this Museum.
- The public is invited and urged to inspect this valuable collection. Admission is always free. Visiting hours are from 10 to 12 a.m. and from 2 to 4 p.m. each day except Saturday and Sunday. Any street car going north from the Omaha Union Station will take you to Fifteenth and Farnam Sts. The Union Pacific Building is two blocks north from that corner.

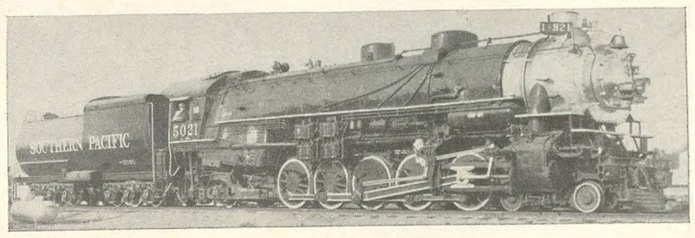


SP engine 5021 is on her way to static display at the Pomona Fairgrounds.

Nearly 13 years of effort to place her in operation have failed. Ironically, it is the success of sister 4449 that has sealed the huge 4-10-2's fate. When it became clear that she would never run again, owner Railway & Locomotive Historical Society of Southern California sought to return its locomotive to her original retirement place at the fair. However, in the intervening years since her removal, the tracks leading into the fairgrounds had been removed. With the coming of the Freedom Train and a temporary reinstallation of the track for its exhibition, the means were once again at hand to return the mighty 3-cylinder locomotive. Soon she'll be back in place, and the tracks will be taken up again, for the final time.

Nearly two weeks ago the 5021 left her storage track in San Bernardino, bypassing the fairgrounds on her way to Los Angeles. Now she is headed back east again, to Pomona. Like a small-town kid who went in search of fortune in the outside world and failed, SP engine 5021 is taking the long way home.—JOHN G. NEVILLE. 1982

Funds Needed to Qualify 5021 for Service



This 3-cylinder 4-10-2 locomotive is in excellent condition! However, $30,000 are required for refluing and to qualify it for service under the Federal Railroad Administration's Bureau of Railroad Safety. A substantial inventory of spare parts and supplies assembled over the last 15 years will keep her in service for many years once qualified.

All donations are gratefully accepted no matter how small. Donations of $100 or more will receive a 1-year excursion pass, $500 or more a 1-year excursion pass with cab privileges, $1,000 or more a lifetime excursion pass with cab privileges. Should unforeseen negating contingencies arise, all donations will be refunded.

5021 specifications
Length: 101 ft.
Weight: 368 tons
Drivers: 63 in.
Horsepower: 4,100
T.E. with booster 96,550 lbs.
Built: Alco, 1926

Send to:
Locomotive 5021 Fund
R&LHS, So. Calif. Chapter
4939 Forman Avenue
North Hollywood, Calif. 91601

1943

Sign-Boards Were Used to Carry the Message to the Public

S.P. Spends $73,728 to Discourage Travel

1943

The Railroad, The Sioux, and the Repeating Rifle.

The work gangs started west from Omaha, laying 5 miles of track a day.

They had to go through the Cheyenne Pass and they had to go through the Laramie Hills.

And they had to go through the Sioux.

The Sioux had already massacred Fetterman and 81 men outside Fort Phil Kearny.

(Seven years later, they would massacre Custer.)

Now it was the railroad's turn.

The raids were swift and lethal. A brave could put 25 arrows into flight almost as fast as a man could pull a trigger.

The work gangs were good for one shot. After the first volley, they had empty guns. Trains burned and telegraph wires came down and railroad men died by the hundreds.

Two things kept the railroad moving: the Indians did not know how to rip up track—and the Winchester arrived.

15 shots per man.

100 years ago the golden spike was driven into the ties at Promontory Point, Utah, where the Union Pacific and the Central Pacific met.

We feel it would be appropriate to mark the anniversary with a special, limited edition Winchester—the Golden Spike Commemorative.

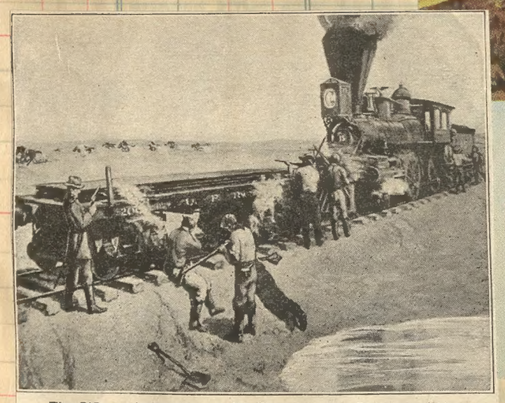
With a receiver and barrel bands of plated yellow gold, a commemorative scroll on the breech, and a U.S. Mint-struck medallion in the stock, this beautiful version of our famous "94" will be offered in carbine only.

Its cost will be $119.95.

WINCHESTER

We won't sell a gun we haven't fired ourselves

Winchester-Western, 275 Winchester Avenue, New Haven, Conn. 06504.



The Rifle as Important as the Shovel in the Building of the Union Pacific

1869. May 10th. 1869.

GREAT EVENT

Rail Road from the Atlantic to the Pacific

GRAND OPENING

OF THE

Union Pacific

RAIL ROAD,

PLATTE VALLEY ROUTE.

PASSENGER TRAINS LEAVE

OMAHA

ON THE ARRIVAL OF TRAINS FROM THE EAST.

THROUGH TO SAN FRANCISCO

In less than Four Days, avoiding the Dangers of the Sea!

Travelers for Pleasure, Health or Business

Will find a Trip over The Rocky Mountains Healthy and Pleasant.

LUXURIOUS CARS & EATING HOUSES

ON THE UNION PACIFIC RAIL ROAD.

PULLMAN'S PALACE SLEEPING CARS

RUN WITH ALL THROUGH PASSENGER TRAINS.

GOLD, SILVER AND OTHER MINERS!

Now is the time to seek your Fortunes in Nebraska, Wyoming, Arizona, Washington, Dakotah Colorado, Utah, Oregon, Montana, New Mexico, Idaho, Nevada or California.

CONNECTIONS MADE AT

CHEYENNE for DENVER, CENTRAL CITY & SANTA FE

AT OGDEN AND CORINNE FOR HELENA, BOISE CITY, VIRGINIA CITY, SALT LAKE CITY AND ARIZONA.

THROUGH TICKETS FOR SALE AT ALL PRINCIPAL RAILROAD OFFICES!

Be Sure they Read via Platte Valley or Omaha

Company's Office 72 La Salle St., opposite City Hall and Court House Square, Chicago.

CHARLES E. NICHOLS, Ticket Agent.

G. P. GILMAN, Southwestern Traveling Agent. JOHN P. HART, Gen'l Trav. Agt., 72 La Salle St., Chicago. J. BUDD, Gen'l Ticket Agt., Omaha, Neb. W. SNYDER, Gen'l Superintendent, Omaha, Neb.

RUN OF THE DEATH VALLEY SCOTTY SPECIAL

Consist: 1 Baggage, 1 diner & 1 sleeper-170 ton. Departed Los Angeles at 1 PM July 9, 1905 and arrived Chicago July 11th at 11:54 AM; 2,265 miles in 44 hours and 54 mins at average speed of 50.4 mph.

	Eng	Type	Miles	Time	Avg mph
Los Angeles to Barstow	442	4-6-0	141.1	2'05"	48.5
Barstow to Needles	1005	2-6-2	169.3	3'19"	51.0
Needles to Seligman	1010	2-6-2	148.9	3'31"	42.4
Seligman to Williams	1016	2-6-2	50.8	1'29"	34.4
Williams to Winslow	485	4-6-0	92.2	2'11"	42.1
Winslow to Gallup	1000	2-6-2	128.0	2'35"	49.4
Gallup to Albuquerque	478	4-6-0	157.8	3'12"	49.4
Albuquerque to Las Vegas	1211	4-6-2	132.2	3'00"	44.0
Las Vegas to Raton	1208	4-6-2	110.8	2'12"	50.5
Raton to La Junta	1215	4-6-2	104.5	2'17"	46.2
La Junta to Syracuse	536	4-4-2	100.8	1'35"	63.7
Syracuse to Dodge City	531	4-4-2	101.6	1'38"	62.2
Dodge City to Newton	530*	4-4-2	153.4	2'39"	57.9
Newton to Emporia	526	4-4-2	73.1	1'10"	62.6
Emporia to Argentine	524	4-4-2	120.2	2'10"	57.3
Argentine to Marceline	547	4-4-2	108.0	2'01"	54.0
Marceline to Shopton	542	4-4-2	112.8	2'03"	55.0
Shopton to Chillicothe	510	4-4-2	104.7	1'41"	62.3
Chillicothe to Chicago	517	4-4-2	134.3	2'12"	61.0

* Eng 530 blew cyl head at Kent, replaced by #1095 2-6-2 Kent to Newton

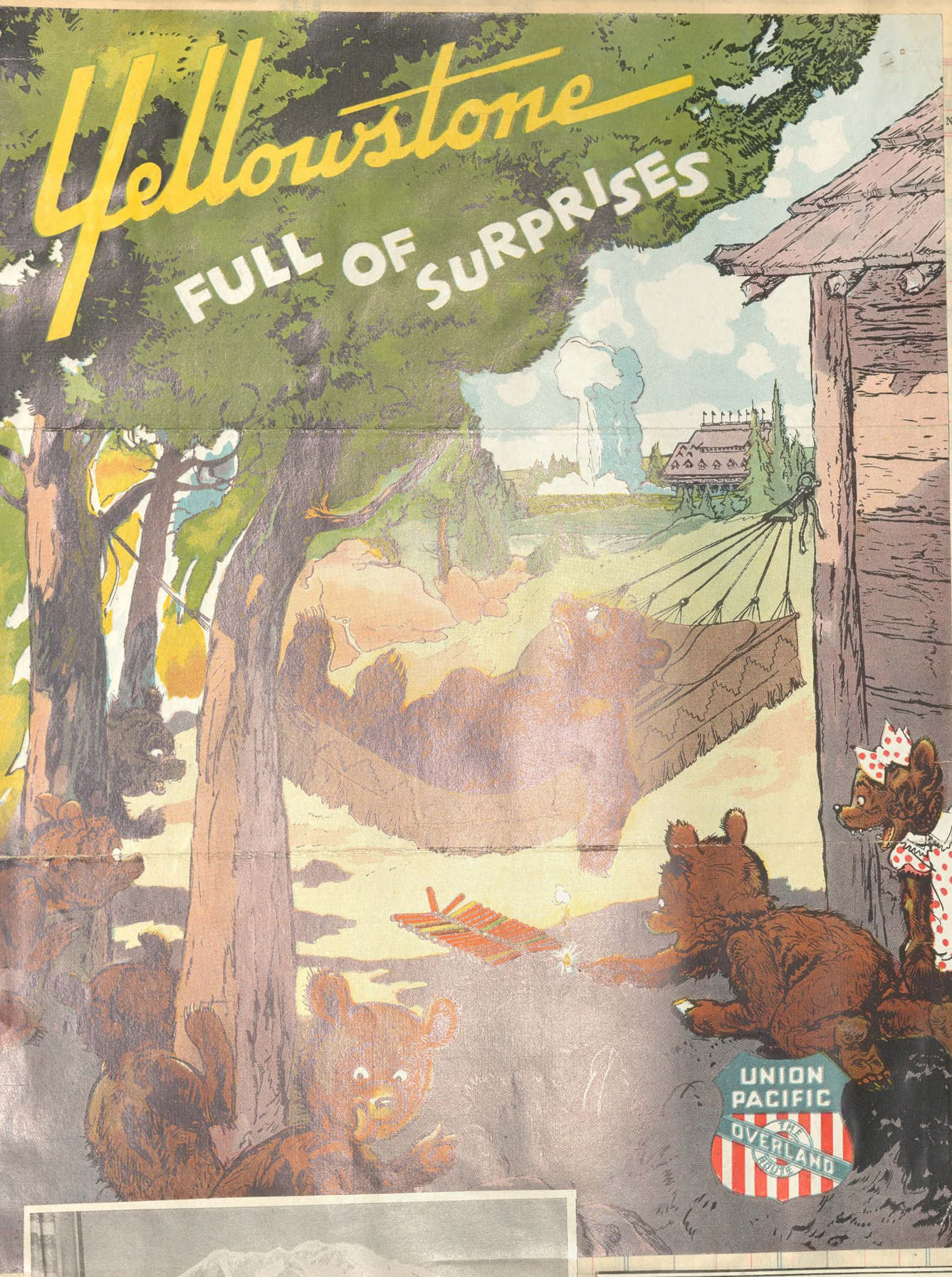
John L. Focht

PREFACE

This volume was put together as a testimonial to the western "Big Three", the S.P., A.T.& S.F. and U.P., from their inception up to the retirement of steam. A period of only eight decades that saw the west opened to civilization by the rapid development of the railroads thru out the area. The material herein, collected over fourty years from numerous publications, is an attempt at a pictorical history of these transportation giants. A look back into the past when the sound of the steam locomotive was to be heard across the far reaches of the West. Those glorious days of railroading are now gone but prehaps these pages will recall fond memories for the "old timers" and envy in those who were born "too late".

F. Ray McKnight

Portland, Oregon
June 20, 1983



"One Hundred Golden Hours at Sea"

Between

NEW YORK

and

NEW ORLEANS

on the famous

S. S. DIXIE

Travelers will find this a very pleasant, economical and diverting way to begin a journey from the North and East to the Southwest, Mexico, Interior and Pacific Coast States. The voyage presents a panoramic view of New York's famed skyline and the upper and lower bays. After passing Sandy Hook the Jersey coast is kept in view until Atlantic City and Absecon Light are passed during the night of sailing day. On the third day thereafter close-up views of noted Florida resorts (including Palm Beach and Miami) are enjoyed, followed by a night run down the coast past brilliantly illuminated resorts and settlements. Then there is the two-days crossing of the Gulf of Mexico and the weird spectacle of the night arrival at South Pass in the Mississippi River Delta—one of the world's strangest maritime gateways—and the morning arrival at *fascinating New Orleans,* a city unlike any other in America, giving the impression of landing in an old town in France.

Comfortable quarters, bountiful and well-cooked meals, swimming in the permanent out-door pool, deck games, radio, dancing, lounge, the cafe, that popular pastime—horse racing—and entertainments arranged by the hostess, all contribute to the enjoyment of this remarkably attractive sea voyage. *And even in instances when the through fare from point of origin via this water-rail route may be slightly higher than via an all-rail route, economy is effected because first class accommodations and meals on the steamer while at sea are included.*

A popular feature of the service is the "all-expense" tour from New York to New Orleans and return. It includes first class accommodations and meals (southbound voyage five and one-half days, northbound voyage five days), transfers between ship and hotel in New Orleans, four days lodging (hotel room and bath, without meals) and four glamorous sightseeing trips in and around New Orleans. Minimum cost of the tour for one person is $97.00; if two occupy a hotel room, $95.00 each.

SCHEDULE OF SAILINGS:

From New York, Pier 49, North River, 5 P.M. (Eastern Standard Time) Wed.; due New Orleans following Tues. 7 A.M. (Central Standard Time).

From New Orleans, Canal Street Wharf, 11 A.M. (Central Standard Time) Sat.; due at New York following Thurs. 8 A.M. (Eastern Standard Time).

Leave New York Wed.	Vessel	Arrive New Orleans Tues.	Leave New Orleans Sat.	Vessel	Arrive New York Thu.
Oct. 5	Dixie	Oct. 11	Oct. 15	Dixie	Oct. 20
Oct. 26	Dixie	Nov. 1	Nov. 5	Dixie	Nov. 10
Nov. 16	Dixie	Nov. 22	Nov. 26	Dixie	Dec. 1
Dec. 7	Dixie	Dec. 13	Dec. 17	Dixie	Dec. 22

Sailings subject to change or cancellation without notice.

FREIGHT SERVICE *Between*

New York, Boston, New Bedford, Baltimore, Norfolk and Galveston—Houston; New York—New Orleans Fast Package Car Service from Gulf Ports

Through rates and through bills of lading between New England-Eastern Trunk Line territories and points in Mississippi, Louisiana, Arkansas, Texas, Oklahoma, Colorado, Utah, New Mexico, Arizona, California, Oregon, Washington and Mexico; also to and from foreign countries via Gulf and Pacific ports.

Southern Pacific Steamship Lines

"Morgan Line"

(Forms A and B)

1935

Southern Pacific
Steamship Lines

By Sea and Land to California

"100 Golden Hours at Sea," New York to New Orleans, thence "Sunset Limited"

Fares same as all rail but include first class meals and accommodations aboard ship

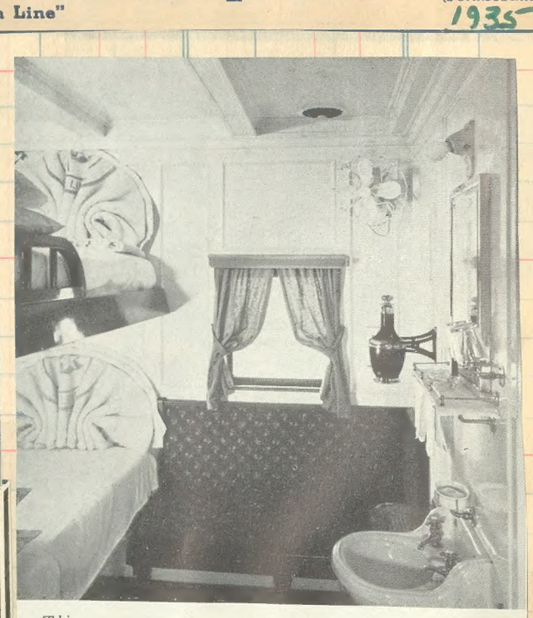
EXAMPLES OF MINIMUM FARES, INCLUDING MEALS AND SLEEPING ACCOMMODATIONS ON STEAMER

One way between New York and San Francisco

$94.94 . . 1st Cabin on steamer thence in standard Pullman or Tourist sleeping cars (berth extra).

$77.06 . . 1st Cabin on steamer thence in tourist sleeping cars (Pullman berth charge extra).

$66.68 . . 1st Cabin on steamer thence in coaches or chair cars.



This is a roomy MINIMUM FARE *stateroom on Southern Pacific's steamer, the gallant* S. S. DIXIE. *(See page 12)*

On your trip to or from the West or South, enjoy

"100 Golden Hours at Sea"

on the famous

S. S. DIXIE

between New Orleans and New York

Ask any S. P. agent

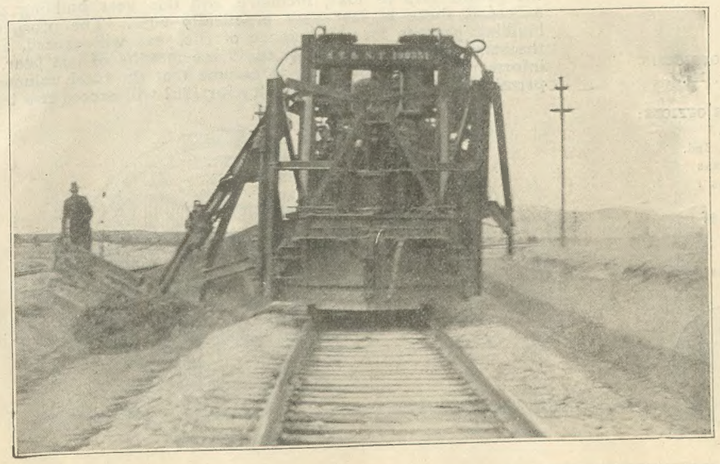
Southern Pacific S.S. Lines

it's fun

Mt. Shasta is seen from the "Shasta Daylight."

to see the Pacific Coast on the *Shasta Daylight*

Jordanizing Ditches the Rest of the Year Makes Winter Railroading Smoother

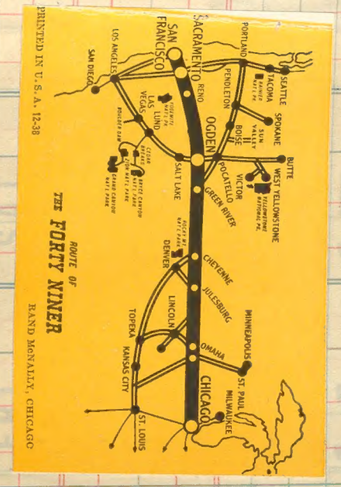


A T & S F

The Jordan Spreader-Ditcher does the work of an army of men

O. F. JORDAN COMPANY East Chicago, Indiana

1922



PRINTED IN U. S. A. 12-38

BARBER SHOP AND VALET SERVICE

MEN

Hair Cut	.50	Facial Massage	.50
Shave	.25	Plain Shampoo	.50
Beard Trimmed	.35	Shampoo, Egg, Oil or	
Hair Stage	.25	Tonic	.75
Facial Massage		Hair Tonics	.25
(Boncilla)	1.00	Bath	.50

WOMEN

Hair Bob	.75	Shampoo, Egg, Oil or	
Hair Bob—Trim	.50	Tonic	1.25
Neck Clip	.25	Hair Tonics	.25
Plain Shampoo	1.00	Bath	.50

VALET SERVICE

Trousers (Pressing)	.35	Woman's Coat	1.00
Vest	.25	Woman's Suit	1.25
Coat	.65	Woman's Skirt	.75
Suit	1.00	Woman's One Piece	
Overcoat	1.00	Dress	1.00

The following Toilet Articles may be purchased at the Barber Shop:

Tooth Brushes	.50	Listerine	.25
Tooth Pastes and		Witch Hazel	.15
Powders	.30–.50	New Skin	.15
Shaving Creams and		Styptic Stick	.10
Powders	.35–.40	Pocket Combs	.25
Talcum Powders	.25	Gillette Razor Blades	
Peroxide of Hydrogen	.25	(5)	.25

Valet service from 6:30 in the morning to midnight. The porter in your sleeping car will arrange for this service.

The 49er 1938

Breakfast · 25¢
A popular 25c Challenger breakfast includes fruit or cereal, eggs—boiled or scrambled—toast—coffee.
(1938)
Luncheon · 30¢
A typical luncheon, includes meat loaf with tomato sauce, browned potato, creamed celery, hot rolls and milk.
Dinner · 35¢
How's this for a dinner? Turkey with cranberry jelly, candied sweet potato—corn casserole—hot rolls—coffee.

"Big Boy"

20 of 'em

FOR THE UNION PACIFIC

BACK in the historic city of Schenectady at the American Locomotive Plant the workers who built the Union Pacific's newest and the world's most powerful locomotive nick-named it "Big Boy." The men on the shop floor were right because the moniker fits "Big Boy" to a tee. This newest 4-8-8-4 giant develops 7,000 horsepower and is capable of hauling a mile of loaded freight at a mile-a-minute clip.

"Big Boy" is 133 feet long and weighs 595 tons with tender. It is the first of twenty similar locomotives built by the American Locomotive Company to specifications of Union Pacific and American Locomotive engineers. The locomotives will haul heavy manifest freight trains from Ogden, Utah, eastward to Green River, Wyoming—one of the most difficult runs in the world. But that isn't all. "Big Boy" has power enough to haul these trains over these mountainous grades without double-heading.

Alco

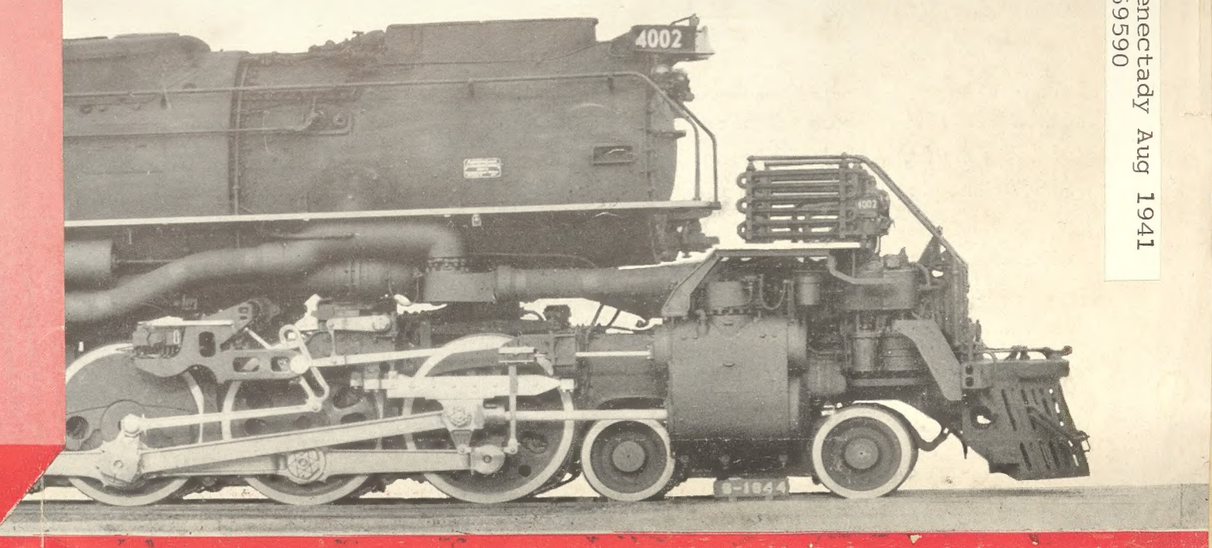
AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET NEW YORK, N. Y.

...y things have changed "Old Timer" of 1866..

EVEN though "Big Boy" is the world's largest and most powerful locomotive, it isn't just big and heavy. Its mechanism is precision built—just like a watch. Heavy—yes—*but* carefully constructed and balanced, "Big Boy" was ready for full-time, heavy duty service without the usual "breaking-in" periods required by all transportation units a few years back, and many even today.

A few hours after its arrival at Omaha, "Big Boy" was hooked onto a train regularly double headed and like a shot out of a gun was on its way to Cheyenne hitting it up to sixty miles per hour. After this initial run of 510 miles completed in one hour under regular schedule, "Big Boy" was in A-1 condition ready for its next assignment. A real champion all the way.



Road Nos 4000-4019 Bldr Alco-Schenectady Aug 1941
Order No S-1844 Const Nos 69571-69590

SELLER
DATE
FORM

SOUTHERN PACIFIC LINES

SUNSET LIMITED

The SUNSET LIMITED placed in service between San Francisco and New Orleans, 2500 miles in 75 hours, as a solid Pullman train in 1894. Operated as a weekly, or tri weekly, train until November 1913 when put on a daily schedule

Southern Pacific's own transcontinental route is the Sunset Route to New Orleans. The original Central Pacific route shares the mileage with the Union Pacific, but the Sunset Route is SP all the way to the Eastern gateway and holds the coveted first place in the timetables. Likewise, the *Sunset Limited* holds train numbers 1 and 2. Here No. 2, the eastbound *Sunset*, is shown near Garnett, Calif., with snow-capped Mount San Jacinto in the background. By W. H. Thrall Jr.

SOUTHERN PACIFIC COMPANY
SUNSET
OGDEN & SHASTA
ROUTES

Train 2—Sunset Limited

Standard Sleepers: ★San Francisco to New Orleans (Sections, Drawing-Room, Compartments).
★San Francisco to San Antonio (Sections, Drawing-Room). (Occupancy until 8.00AM.)
★Los Angeles to New Orleans (Sections, Drawing-Room, Compartments).
★San Francisco to Los Angeles (Sections, Drawing-Rooms, Compartments, Bedrooms).
★San Francisco to Santa Barbara (Sections, Drawing-Room, Compartments). (Sleeper may be occupied until 8.00 AM.)
★Pacific Grove and Del Monte to Los Angeles (Sections, Drawing-Room, Compartments) (Train No. 191 to Watsonville Jct. thence Train 2).
★Los Angeles to Mexico City (Sections, Drawing-Room, Compartment) (on National Rys. of Mexico, Train No. 8, El Paso to Mexico City.) From Los Angeles Monday, Thursday and Saturday. Arrive Mexico City, Thursday, Sunday and Tuesday.
Bedroom Lounge Sleeper: ★San Francisco to Los Angeles. (Single and Double Bedrooms.)
Full Lounge Car: ★San Francisco to New Orleans (Barber, Valet, Shower Bath, Radio).
Dining Car: ★For all Meal Service. Complete luncheons and dinners from 90c up. Breakfasts from 50c up, also a la carte service.
Tourist Sleeper: ★San Francisco to New Orleans. (Train 70 San Francisco to Los Angeles, thenceNo 2.)
Chair Car and Chair-Coach: ★Los Angeles to New Orleans. (Free Pillows.)
Tickets Honored: Ask Agents.

4300-4309
Schenectady 1923
c/n 64891

Southern Pacific

TIME TABLES

SOUTHERN PACIFIC LINES

4 Great Routes

DIRECTLY SERVING
LOUISIANA·TEXAS
NEW MEXICO·MEXICO
ARIZONA·UTAH·NEVADA
OREGON·CALIFORNIA

OCTOBER-NOVEMBER 1935

SUBJECT TO CHANGE WITHOUT NOTICE

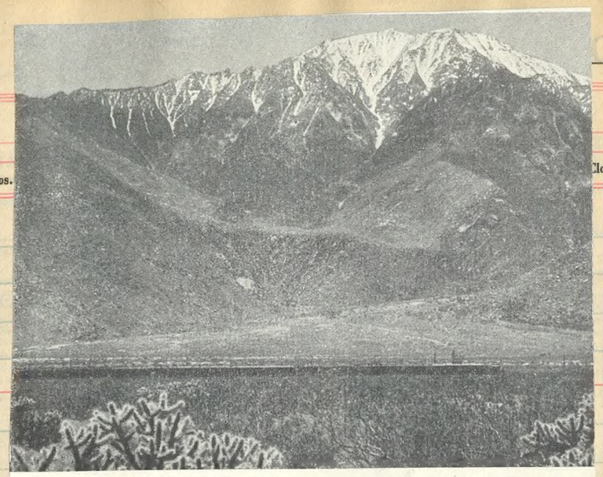
THE ARGONAUT

Southern Pacific No. 5, the Argonaut, with Eng. 5009 (4-10-2) and a 4400-class 4-8-4 at Pershing, Calif. May 1951

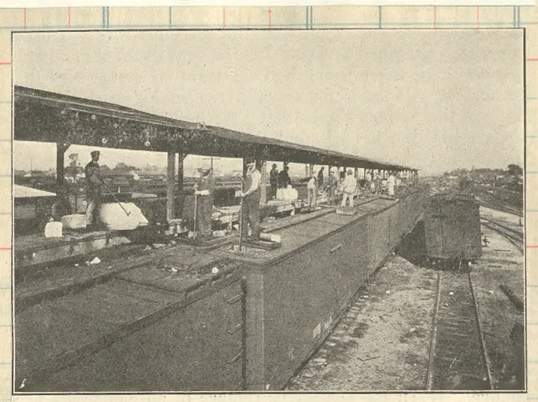
Train 5—Argonaut

Connects at Los Angeles with the "Daylight" No. 99.
Standard Sleepers: ★New Orleans to Los Angeles. (Sections, Drawing-Room, Compartments).
★New Orleans to San Antonio (Sections, Drawing-Room). (On Train 3 New Orleans to Houston thence Train 5).
★Chicago to Los Angeles (Sections, Drawing Room) (on I. C. Train No. 1 from Chicago to New Orleans)
★St. Louis to Los Angeles via M. P., T. & P., S. P. (Sections, Drawing-Room, Compartments).
★Little Rock to Los Angeles (Sections, Drawing-Room) on R. I. No. 111 Little Rock to Tucumcari S. P. No. 43, to El Paso. Connecting Sleeper from Memphis.
★Mexico City to Los Angeles (Sections, Drawing Room, Compartment), (on National Rys. of Mexico, train No. 7, Mexico City to El Paso). From Mexico City Sunday, Tuesday and Thursday; arrive Los Angeles Wednesday, Friday and Sunday.
★Mexico City to Los Angeles via Nogales; from Mexico City, Saturday, Monday and Wednesday (Sections, Drawing Room, Compartment). Arrive Los Angeles Wednesday, Friday and Sunday.
★New Orleans to Houston (Sections).
★New Orleans to Lake Charles (Sections, Drawing-Room). (Sleeper occupancy until 8.00 a. m.)
Full Lounge Car: ★New Orleans to Los Angeles (Barber, Valet, Shower Bath, Radio).
Tourist Sleeper: ★New Orleans to Los Angeles
Dining Car: ★For all Meal Service Complete luncheons and dinners from 90c up. Breakfasts from 50c up, also a la carte service.
Reclining Chair Car and Coach: ★New Orleans to Los Angeles. (Free Pillows, Day or Night.)
Tickets Honored: All classes.

Clos. No. | Sold | Amount | Clos. | Clos. N



MT. SAN JACINTO *looks down on Southern Pacific's* GOLDEN STATE ROUTE *near Palm Springs, California.*



Keystone

Icing Cantaloupe Cars, Imperial Valley, California

Train 12—APACHE—Train 11
Via S. P. and R. I.

Standard Sleepers: Los Angeles to Minneapolis **(Air-Conditioned)** (Sections, Drawing-Room, Compartments).
Phoenix to Chicago (Sections, Drawing-Room, Compartments). (Ready for occupancy at Phoenix at 9.00 P. M.)
Chicago to Los Angeles (Sections, Drawing-Room, Compartments).
Los Angeles and Mexico City **(Air-Conditioned)** (Sections, Drawing Room, Compartment), Mondays, Wednesdays and Fridays from Los Angeles; returning from Mexico City, Sundays, Tuesdays and Fridays (on National Rys. of Mexico Trains 7 and 8, El Paso and Mexico City).
Phoenix and Mexico City **(Air-Conditioned)** (Sections, Drawing-Room, Compartment) (on National Rys. of Mexico trains 7 and 8, El Paso and Mexico City).
Cafe-Lounge Car: (Air-Conditioned) Los Angeles and Tucumcari.
Cafe-Lounge Car: Air-Conditioned. Tucumcari and Chicago.
Tourist Sleeper: Los Angeles and Chicago.
Coaches: Los Angeles and Chicago.
Tickets Honored: All classes.

TRAIN 12—APACHE
Los Angeles, El Paso to Chicago

4310-4327
Schenectady 1924
c/n 65384

This was taken in 1951. The "IMPERIAL" engine 4440 a 4-8-4. This was at the west switch at Beaumont and it was CTC territory. The consist was 8 cars.

VIEW EAST UP SAN TIMOTEO CANYON AND ACROSS YUCAIPE BASIN FROM A POINT 1 MILE SOUTH OF REDLANDS, CALIF.

Near Palm Springs

No 5, the "ARGONAUT", rolling thru San Gabriel behind the 4445

Amount

SOUTHERN PACIFIC LINES

4 Great Scenic Routes

to and from the Pacific Coast

Southern Pacific's four great scenic routes are shown on this map. Truly a wide choice *offered you only by Southern Pacific*. Go one way, return another. And see the whole Pacific Coast.

On the Coast, too, Southern Pacific offers a choice of scenic routes:

Between San Francisco and Los Angeles—6 fine trains daily, including two famous trains by daylight: "Daylight" over Coast Line, running along ocean shore, and "San Joaquin" over San Joaquin Valley Line, serving Yosemite, General Grant, and Sequoia national parks.

Between California and Pacific Northwest—3 fine trains daily over Cascade Line and Siskiyou Line of Shasta Route—"Cascade," "Shasta" and the "Klamath" between San Francisco and Portland; also "West Coast" running direct from Los Angeles to Portland through San Joaquin Valley via Sacramento.

Southern Pacific Lines
and connections

- Southern Pacific Lines (Except when otherwise noted)
- Lines with through trains or car service in connection with Southern Pacific Lines
- ★ Southern Pacific General Agency
- Southern Pacific Steamship Lines
- Other Steamship Lines

(5-20-35)

211

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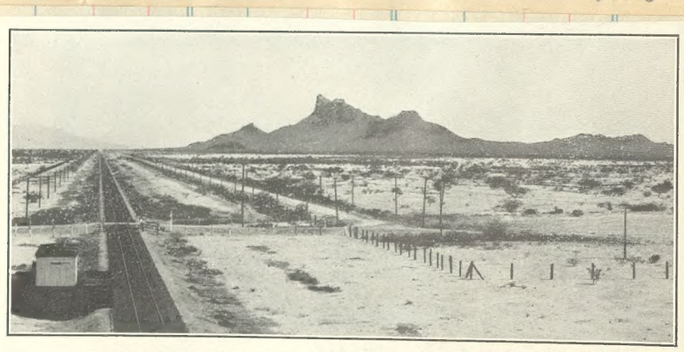
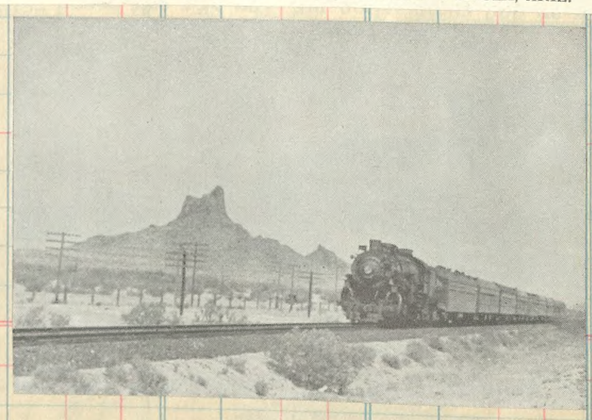
TRAVELED

1935

The SUNSET arriving Yuma, Ariz.

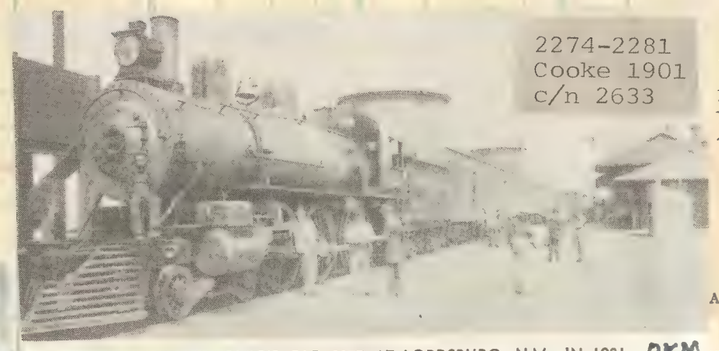


B. PICACHO, A NOTABLE LANDMARK NEAR WYMOLA, ARIZ.



CACTUS FORESTS *like this border Southern Pacific's main line through Southern Arizona. This photograph was taken between Phoenix and Tucson, where* SUNSET *and* GOLDEN STATE ROUTE *trains pass a dozen miles of these grotesque plants. The tall ones (above) are sahuaro cacti.*

B. VIEW NORTHWARD ACROSS THE GILA RIVER FROM ANTELOPE HILL, BETWEEN WELLTON AND ROLLS, ARIZ.
Castle Dome Mountains in distance; irrigated fields in middle ground.

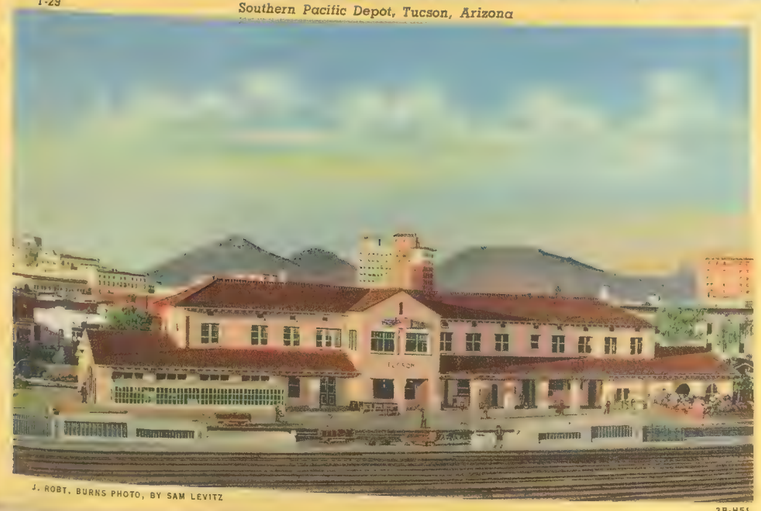


SOUTHERN PACIFIC'S OLD 2275 AT LORDSBURG, N.M., IN 1901 DKM

2274-2281
Cooke 1901
c/n 2633

THE DESERT *of Southern Arizona, a formidable barrier to early settlers, holds no terrors for S. P.'s air-conditioned trains.*

T-29 Southern Pacific Depot, Tucson, Arizona

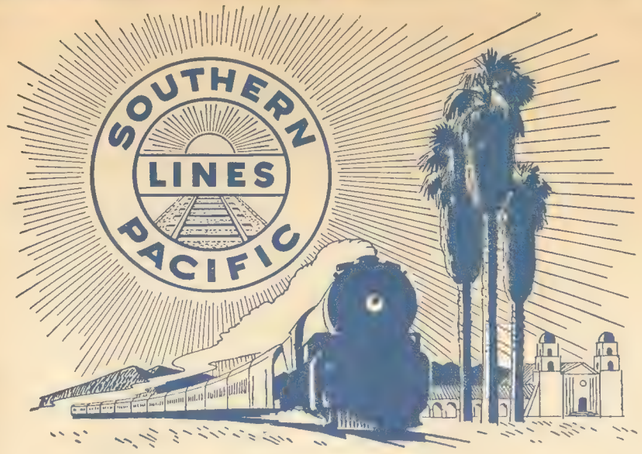


J. ROBT. BURNS PHOTO, BY SAM LEVITZ

3B-H51

P-39 Union Depot, Phoenix, Arizona

OB-H2620



The Sunniest Winter Way to and from CALIFORNIA

Southern Arizona and Palm Springs

NO TRANSCONTINENTAL U.S. railroad goes farther south than Southern Pacific's SUNSET ROUTE, joining New Orleans and California through the Old South, Texas and the Southwest. This is the sunniest winter way to and from California, Southern Arizona's guest ranch country and the swanky desert resorts at Palm Springs.

Follow summer through this sun-bathed empire on the swift *Sunset Limited* or *Argonaut*. (The *Argonaut* has a through Pullman Chicago-Los Angeles via New Orleans).

Between New York and New Orleans you can enjoy a delightful five-day voyage on Southern Pacific's gallant *S.S. Dixie*.

Three other Southern Pacific routes invite you to *go one way, return another* and see twice as much: GOLDEN STATE ROUTE between Chicago and Los Angeles via El Paso, OVERLAND ROUTE between Chicago and San Francisco via Reno and Great Salt Lake, SHASTA ROUTE between California and the Pacific Northwest, connecting with northern transcontinental lines.

Hotel Playa de Cortés Opens November 1 for Winter Season

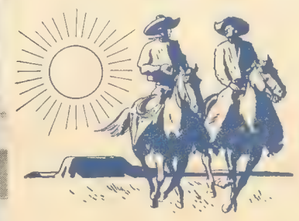
If you're bound for California, the Southwest or Mexico, you can easily include Hotel Playa de Cortés in your trip. A "desert resort by the sea," Playa de Cortés offers you modern American comfort in the lazy, foreign atmosphere of Guaymas, Mexico, an easy trip by air-conditioned Pullman from Tucson. Sports: swimming, tennis, badminton, riding, deep-sea fishing.

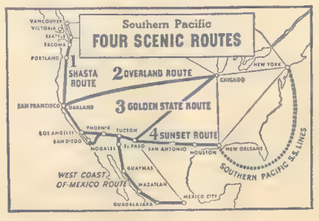
New Orleans Mardi Gras, Feb. 16 to 21

This world-famous carnival attracts countless thousands to the Creole City. Plan to include it in your winter trip east or west.

San Francisco World's Fair February 18 to December 2, 1939

A $50,000,000 show on man-made "Treasure Island" in San Francisco Bay. Even now you can see the Fair much as it will look when finished, with its great buildings and pyramided towers recalling the mysteries of Incan, Mayan and Cambodian temples. Be sure to include Treasure Island in your trip.





A-115 (9-26-38) 110M—Standard Folder—October-November 1938 (Form A)—Subject to change without notice—Printed in United States

RAILROADS AT WAR
(continued)

Coaling plant at Lordsburg, NM

10

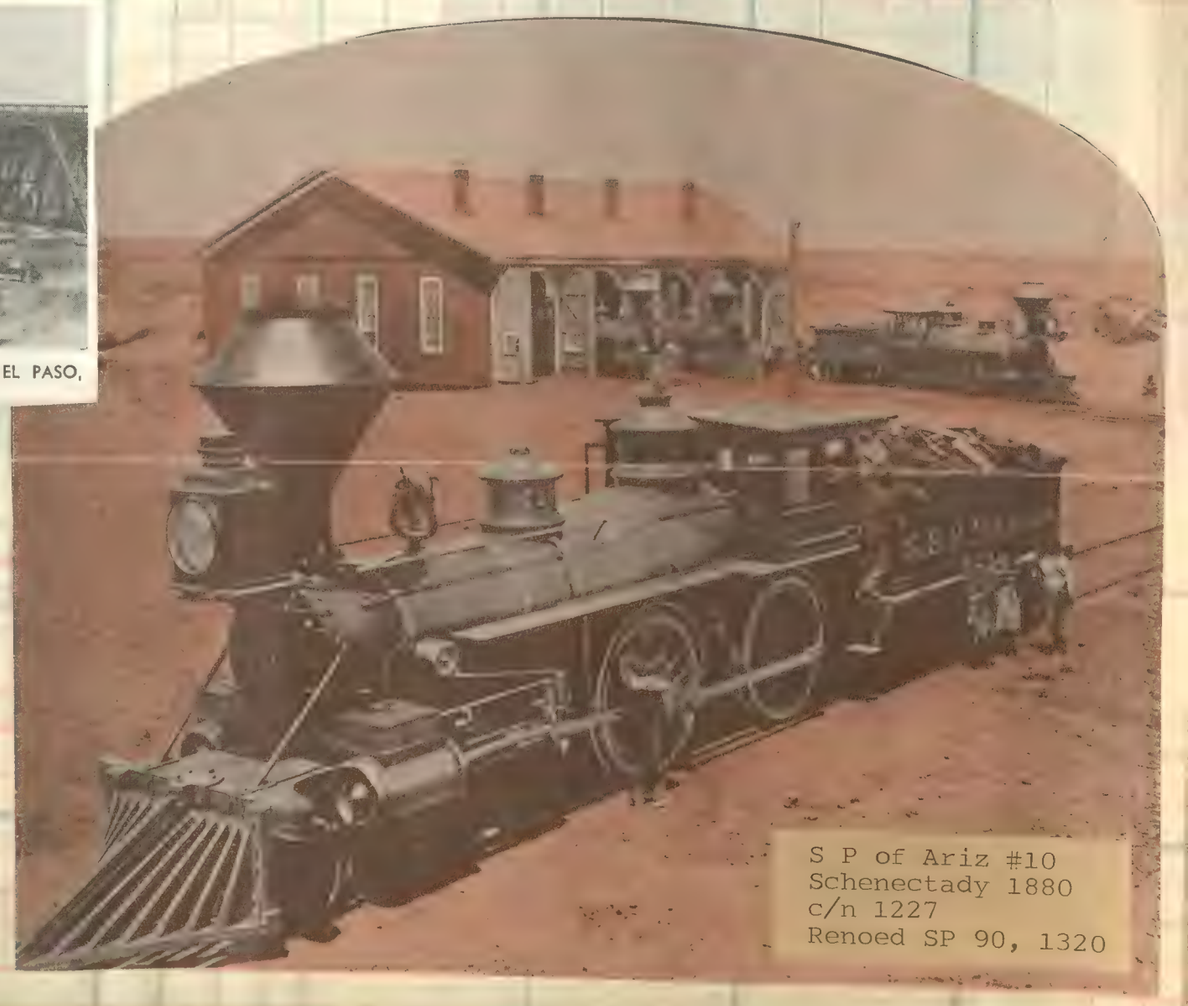
SALES AT

Clos.No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

EL PASO *is Spanish for "The Pass." Southern Pacific trains take you right through the heart of this very interesting border city.*

by Russell G. Knight
Sunset Limited Eastbound Over the Southern Pacific's Rio Grande Bridge West of El Paso, Tex.

SOUTHERN PACIFIC DAYLIGHT ENGINE BRINGS "THE IMPERIAL" INTO EL PASO, TEX., OVER THE RIO GRANDE BRIDGE

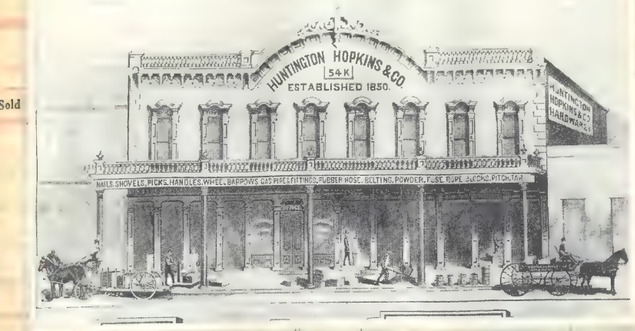


Sunset Limited
COMPLETELY AIR-CONDITIONED

All cars—coaches, chair cars, tourist sleeping cars, Pullmans, dining and lounge cars—are air-conditioned on the Sunset Limited between New Orleans and Los Angeles, via Houston, San Antonio, El Paso and Tucson.
The Sunset also carries a through air-conditioned Pullman between New Orleans and San Diego.

S P of Ariz #10
Schenectady 1880
c/n 1227
Renoed SP 90, 1320

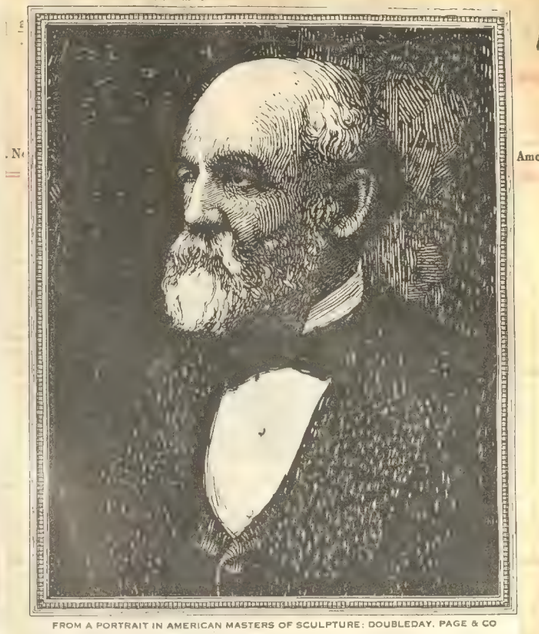
Cles. No. Sold


HUNTINGTON HOPKINS & CO.
54 K
ESTABLISHED 1850.
HUNTINGTON HOPKINS & CO. HARDWARE
NAILS, SHOVELS, PICKS, HANDLES, WHEELBARROWS, GAS PIPE & FITTINGS, RUBBER HOSE, BELTING, POWDER, FUSE, RUPE, BUCKS, PITCH, TAR

The original Huntington-Hopkins store at 54 "K" Street in Sacramento. It served as the Central Pacific's home office until 1873.

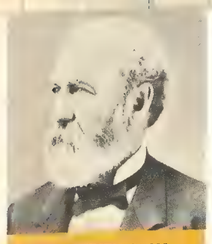
Completely rebit Sacramento Shops in 1869 and renoed 2nd #1 Retired 1886

Locomotive "Elephant" Built by Globe Works of Boston in 1849. Later Became Engine No. 4 of Sacramento Valley R. R. Name Subsequently Changed to "Pioneer" and Later to "C. K. Garrison." This Engine Was Scrapped in the Eighties.



FROM A PORTRAIT IN AMERICAN MASTERS OF SCULPTURE: DOUBLEDAY, PAGE & CO

Collis P. Huntington



C. P. HUNTINGTON

LELAND STANFORD

CHARLES CROCKER

MARK HOPKINS

FRONT STREET at Sacramento in the 1860s, showing railroad cars and station of the Sacramento Valley Railroad in the foreground, and Central Pacific freight and passenger stations in the background, site of the ground breaking on January 8, 1863.

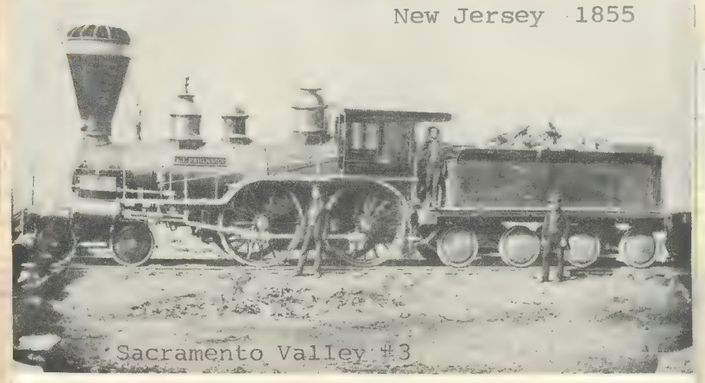
SACRAMENTO VALLEY NO. 1, "SACRAMENTO"

The dreamer — Theodore Judah, a young civil engineer gifted with imagination and intellect — was convinced, after many surveys on foot across the Sierra, that a railroad could be built to scale the mountains. He laid out a proposed rail route and took his plan to Congress several times seeking support. His proposal was labeled fantastic and preposterous.

Then Judah met the four businessmen who grew to share the dream with him: Leland Stanford, dealer in groceries and provisions; C. P. Huntington, dry goods store proprietor; Charles Crocker and Mark Hopkins, partners in a hardware establishment. Against the advice of opposition and ridicule they joined forces with the eloquent Judah, putting their entire resources and personal credit into the project.

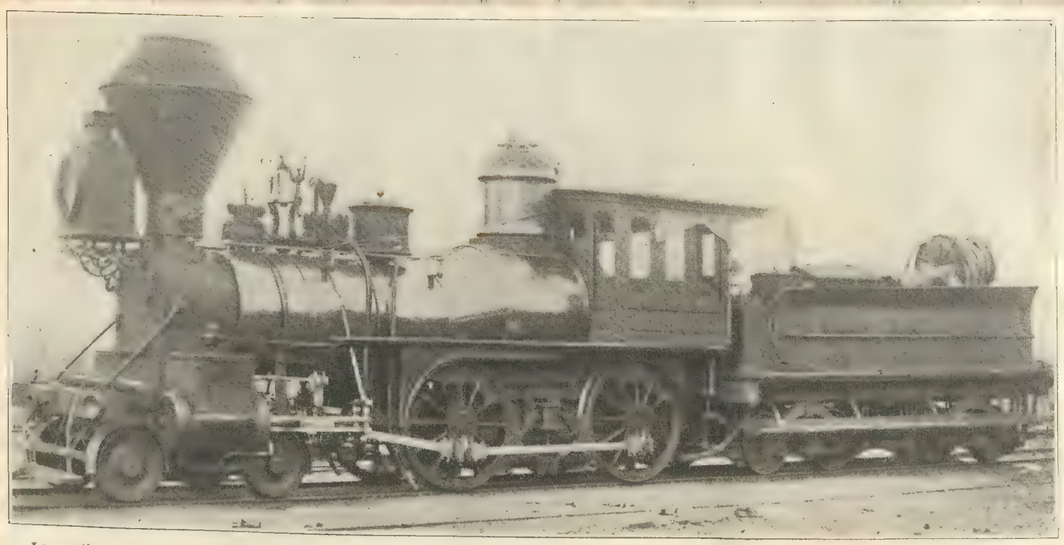
Thus encouraged, Judah again went to Washington and played a leading role in the final passage of the Pacific Railroad Bill, which was signed by President Lincoln on July 1, 1862.

New Jersey 1855



JUDAH POSES WITH THE "L. L. ROBINSON" AND CREW

Handsome Sacramento passenger station — one of the most modern of its day — was built in 1879 to replace earlier station on Front Street. This photo, showing trains of the period, was taken in 1883.



Locomotive "Governor Stanford," Afterward Central Pacific Engine No. 1. Built by Norris & Sons. Placed in Service November 11, 1863, and Was First Locomotive of the Central Pacific Ry. in California.

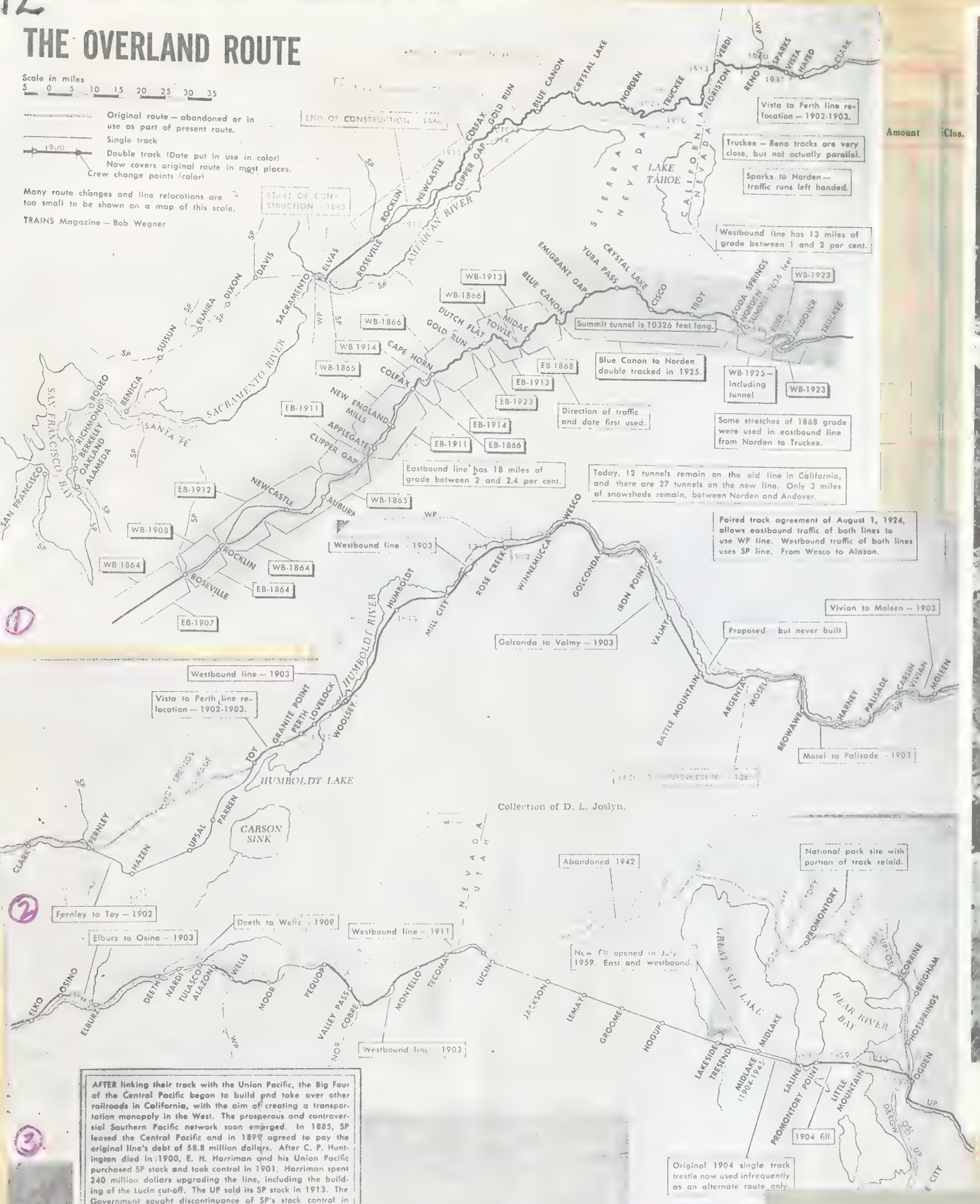
Built 1862 c/n 1040 Retired 1894 Fully restored and now on static display at Calif. R.R. Musuem-Sacramento

On static display California R.R. Museum in Sacramento

The West Coast has its historic locomotives, too. The C. P. Huntington, now No. 1 on the Southern Pacific's roster, was originally No. 3 on the old Central Pacific. It was built by Danforth, Cooke & Company at Paterson, N. J., and was shipped around Cape Horn and assembled at Sacramento. It went into service in April 1864. The engine was 32 feet long, weighed 39,000 pounds loaded, and had a tractive power of 3510 pounds.

12

THE OVERLAND ROUTE


Scale in miles
5 0 5 10 15 20 25 30 35
Original route — abandoned or in use as part of present route.
Single track
1910
Double track (Date put in use in color)
Now covers original route in most places.
Crew change points (color)
Many route changes and line relocations are too small to be shown on a map of this scale.
TRAINS Magazine — Bob Wegner
END OF CONSTRUCTION - 1868
START OF CONSTRUCTION - 1863
Vista to Perth line re-location — 1902-1903.
Truckee — Reno tracks are very close, but not actually parallel.
Sparks to Norden — traffic runs left handed.
Westbound line has 13 miles of grade between 1 and 2 per cent.
Summit tunnel is 10326 feet long.
Blue Canon to Norden double tracked in 1925.
WB-1925 — including tunnel
Some stretches of 1868 grade were used in eastbound line from Norden to Truckee.
Direction of traffic and date first used.
Eastbound line has 18 miles of grade between 2 and 2.4 per cent.
Today, 12 tunnels remain on the old line in California, and there are 27 tunnels on the new line. Only 3 miles of snowsheds remain, between Norden and Andover.
Paired track agreement of August 1, 1924, allows eastbound traffic of both lines to use WP line. Westbound traffic of both lines uses SP line. From Wesco to Alazon.
Westbound line - 1903
Vista to Perth line re-location — 1902-1903.
Vivian to Moleen — 1903
Proposed but never built
Golconda to Valmy — 1903
Mosel to Palisade - 1903
Westbound line — 1903
Fernley to Toy — 1902
Elburz to Osino — 1903
Deeth to Wells - 1909
Westbound line - 1911
Westbound line - 1903
Abandoned 1942
National park site with portion of track relaid.
New fill opened in July 1959. East and westbound.
1904 fill
Original 1904 single track trestle now used infrequently as an alternate route only.
SACRAMENTO RIVER
AMERICAN RIVER
HUMBOLDT RIVER
HUMBOLDT LAKE
LAKE TAHOE
CARSON SINK
GREAT SALT LAKE
SAN FRANCISCO BAY
SIERRA NEVADA
CALIFORNIA
NEVADA
UTAH
SP
WP
UP
D&RGW
OSL

Collection of D. L. Joslyn.

AFTER linking their track with the Union Pacific, the Big Four of the Central Pacific began to build and take over other railroads in California, with the aim of creating a transportation monopoly in the West. The prosperous and controversial Southern Pacific network soon emerged. In 1885, SP leased the Central Pacific and in 1899 agreed to pay the original line's debt of 58.8 million dollars. After C. P. Huntington died in 1900, E. H. Harriman and his Union Pacific purchased SP stock and took control in 1901. Harriman spent 240 million dollars upgrading the line, including the building of the Lucin cut-off. The UP sold its SP stock in 1913. The Government sought discontinuance of SP's stock control in Central Pacific, but the ICC ruled in 1923 that common control of both roads should continue. Central Pacific finally lost its separate identity in the 1950's.

Central Pacific Work Train in the Sierra Mountains During 1865 When the Railroad Grade was Being Cut Above Auburn. Chinese Working with Picks and Shovels, One-Horse Dump Carts and Black Powder Carved a Right-of-Way Through Solid Granite.

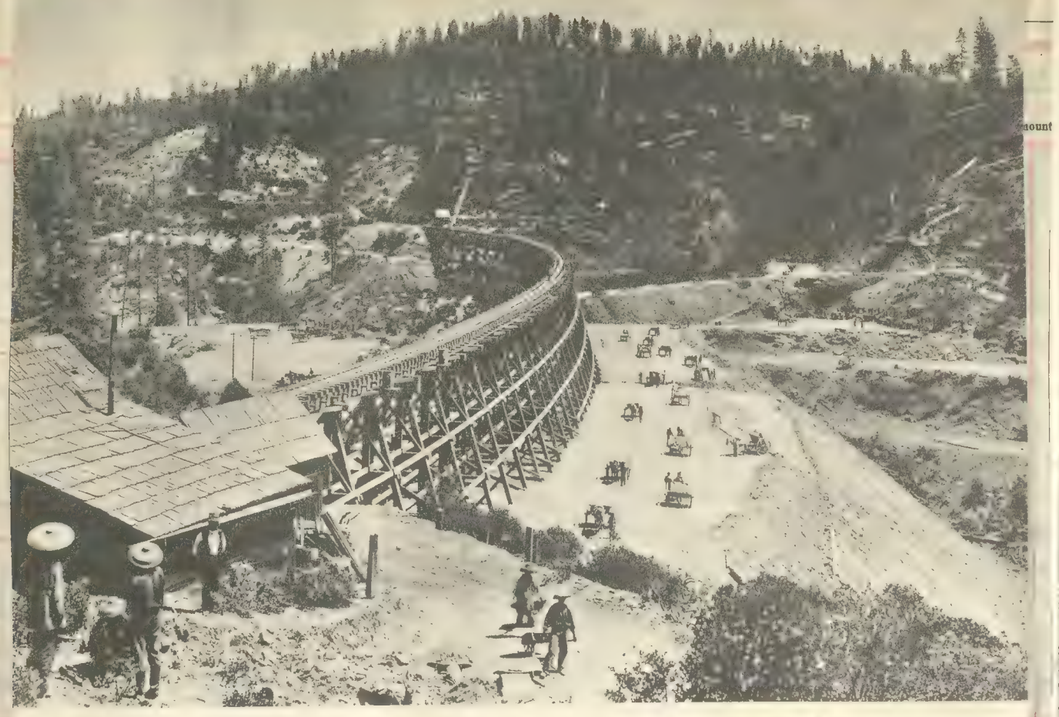
No 11, the "ARTIC" at Dixie Cut near Blue Canyon. Mason 1865

COLFAX, CALIF.
1868

Courtesy of the Southern Pacific

IN THE SIERRAS, 1868

Clos. No. Sold



Courtesy Southern Pacific Railroad.

CONSTRUCTION IN 1868

Railroads cross deep valleys on high trestles. As time and money permit these trestles are afterward made into "fills" by piling earth around them up to the level of the track. The picture above, made about 1868, shows how such work was done then, with wheelbarrows and one-mule dump carts. Working that way, Chinese coolies spent a summer filling dirt around this high wooden trestle of the Central Pacific's first transcontinental line through the Sierra Nevada.

foto gift of D. L. Joslyn Nov 17, 1970

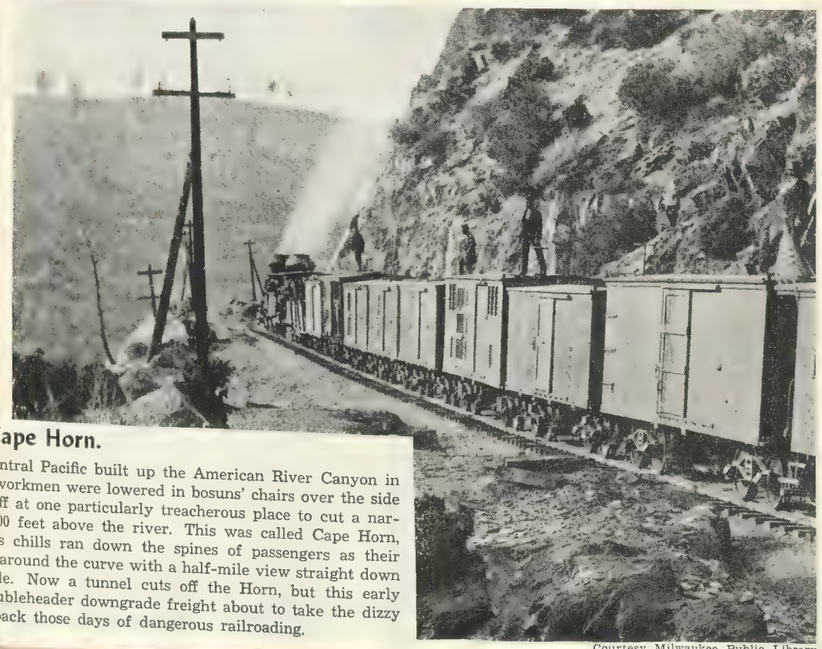
Built by Norris Lancaster in 1864 as (old) Western Pacific No. H, the "Sonoma". While working for the Central Pacific was badly damaged in a collision near Verdi, Nevada. Was completely rebuilt by the C.P. (as shown here at Sacramento in 1872) Was taken into the C.P. roster and noed 173 in 1870. Later was the 1285 and 1523. Retired in 1909.

The "Hercules", #13, ready to depart Cisco

Nos 13 & 14 blt 1865. Both later re-blt as 4-4-0's

Cisco in 1868.

Although it was April, 1868, before the Central Pacific crossed the summit of the Sierras, trains were running to Cisco, 12 miles west of the summit, as early as October, 1866. The Ten-Wheeler *Idaho* is shown (right) leaving the Cisco engine house before coupling to the down train for Sacramento some time in 1868. Central Pacific ran through a portion of California which was comparatively built up and the railroad lost no time in starting revenue service over the completed portions of the line.



Around Cape Horn.

When the Central Pacific built up the American River Canyon in 1865 and '66, workmen were lowered in bosuns' chairs over the side of a steep cliff at one particularly treacherous place to cut a narrow ledge 2500 feet above the river. This was called Cape Horn, and for years chills ran down the spines of passengers as their trains swung around the curve with a half-mile view straight down on the outside. Now a tunnel cuts off the Horn, but this early view of a doubleheader downgrade freight about to take the dizzy turn brings back those days of dangerous railroading.

Courtesy Milwaukee Public Library.

No 14 "ONEONTA" another of the Cooke Moguls at Cisco.

Due to the heavy snowfalls at Truckee, the enginehouse was completely enclosed.

WESTERN CLASSIC. Rim rock frames an early Central Pacific train in the Palisade Canyon of Nevada. Engine appears to be No. 152, the "WHITE FOX." (Courtesy of Southern Pacific)

A Section of the Old Line, and the Sign that Has Marked the Record Track Construction in 1869

Southern Pacific.

Rail dump at end of track in Nevada.

A supply of rail is shown piled near the end of track on the Central Pacific (now Southern Pacific) as the railhead pushed ahead over the Nevada desert during 1868-69. It was over terrain such as this that the eight Irish track layers, backed by an army of Chinese coolies, laid 10 miles of track in one day, the final big push which put the Central Pacific within short distance of the spot at Promontory where the gold spike was driven May 10, 1869.

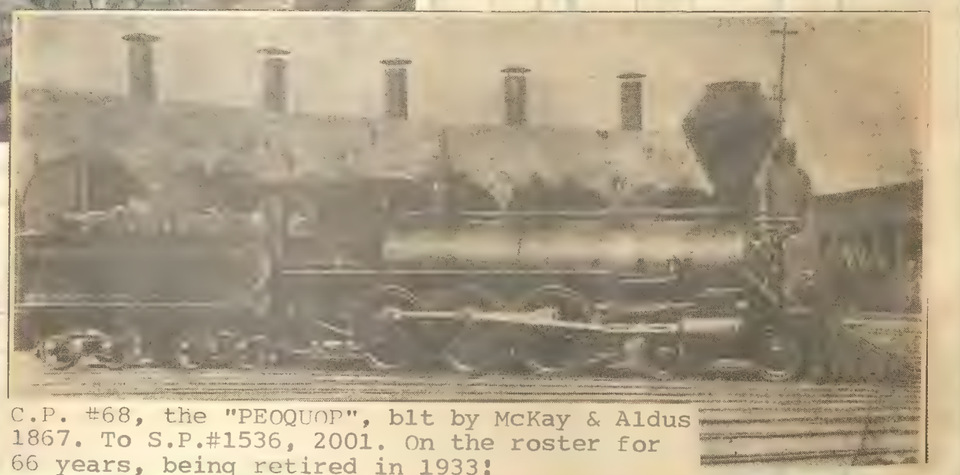
It was named Camp Victory in recognition of the newly won track-laying championship, and was only 3½ miles from Promontory. The man in dark suit, standing on the flat car in the foreground, is J. H. Strobridge, construction superintendent in charge of the Central Pacific force. Above are pages from the time book of George Coley, foreman of the record-making track gang, with names of the eight Irishmen who made up the rail-laying crew and the two who handled the track gauge.

Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

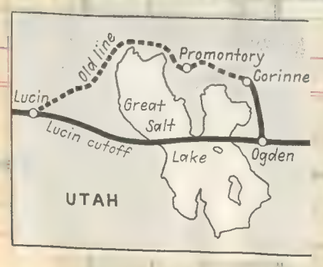
LINKING THE TRANSCONTINENTAL RAILROAD — MAY 10, 1869

Promontory line being abandoned
Sept 1942

Rail head in Nevada



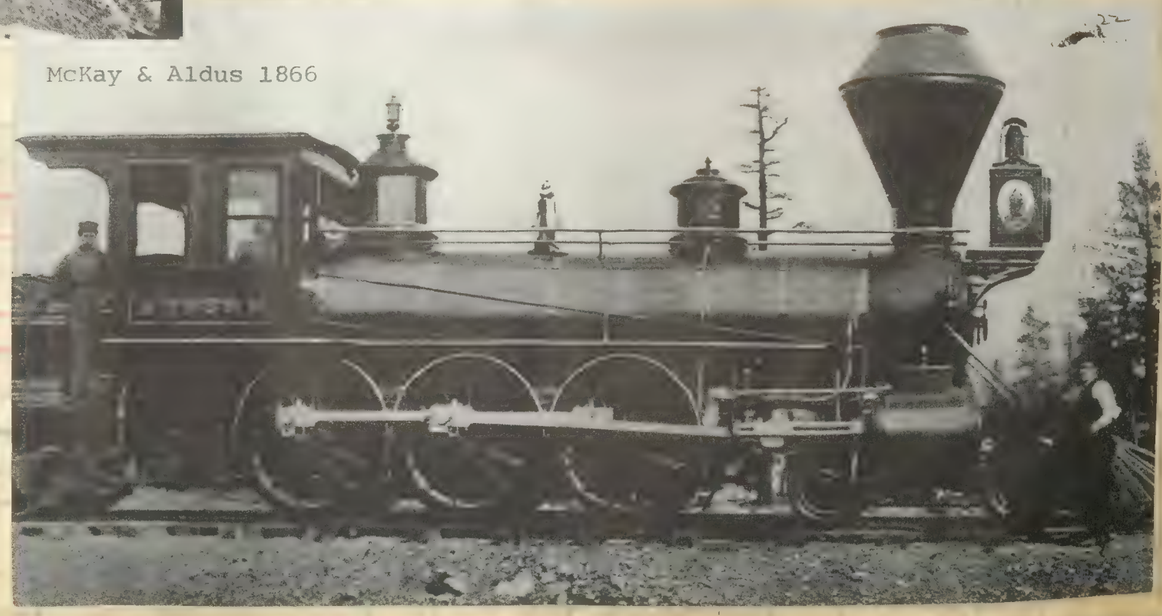
C.P. #68, the "PEOQUOP", blt by McKay & Aldus 1867. To S.P.#1536, 2001. On the roster for 66 years, being retired in 1933!



NOBODY TOLD THEM TO STOP!
UP AND CP CREWS LAID THEIR TRACKS PAST EACH OTHER AND SIDE BY SIDE FOR 225 AND 80 MILES RESPECTIVELY AT PROMONTORY POINT, UTAH. RESULT: FIRST TRANSCONTINENTAL RR WAS 305 MILES TOO LONG

(From Lois M. Patterson, 3311 Van Buren St., Chicago, Ill.)

McKay & Aldus 1866



16

"WHITE EAGLE" was the name assigned Central Pacific's No. 116. Early engines bore a wide variety of names, including birds, animals, rivers, prominent personages, mythological characters, etc. One series on C.P. included "DRIVER," "CLIPPER," "RACER," "RATTLER," "RANGER," "ROVER," and "RUNNER." (Courtesy of Southern Pacific)

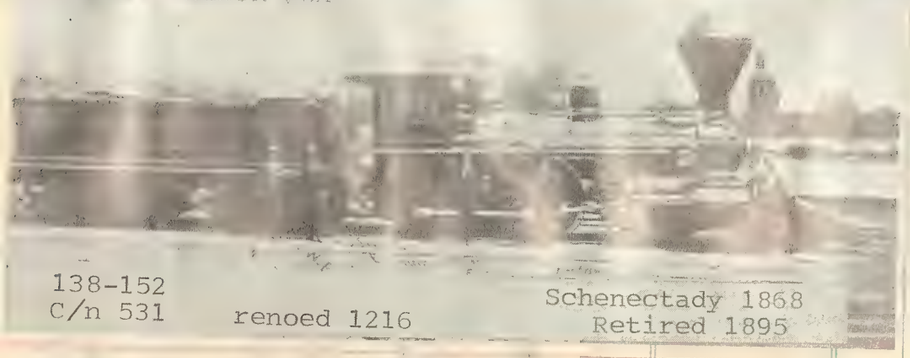
Ten engines built by Danforth 1868
noed 112-121

The "FALCON" acts as host for the Government Inspectors for a tour over newly laid trackage out of Argenta, Nevada in 1869

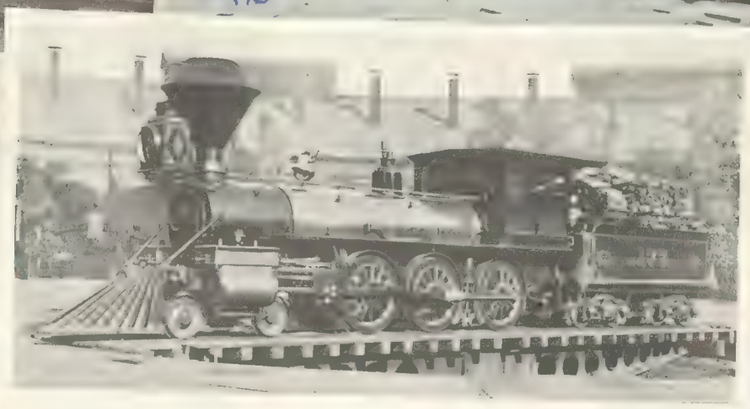
#113

Amount

#142 "BLACK FOX"



138-152
C/n 531 renoed 1216 Schenectady 1868
Retired 1895



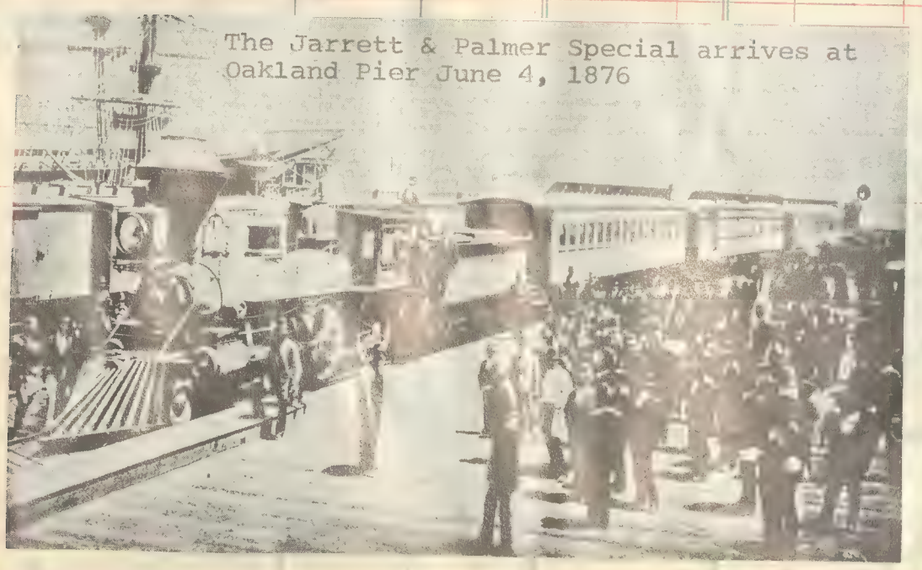
Ten-wheeled (4-6-0) Type, with Stevens Valve Gear, Built at Sacramento in 1887 C/N 25

Cylinders	18" x 30"	Steam pressure	145 lb.	Heating surface	1,453 sq. ft.
Drivers, diam.	57"	Grate area	24.5 sq. ft.	Tractive force	21,020 lb.
Weight on drivers	78,700 lb.		Weight, total engine	105,100 lb.	

One of eight (Nos 56-63) delivered by Schenectady 1869 The BISON, c/n 576, renoed 1533 then S.P. 2020.

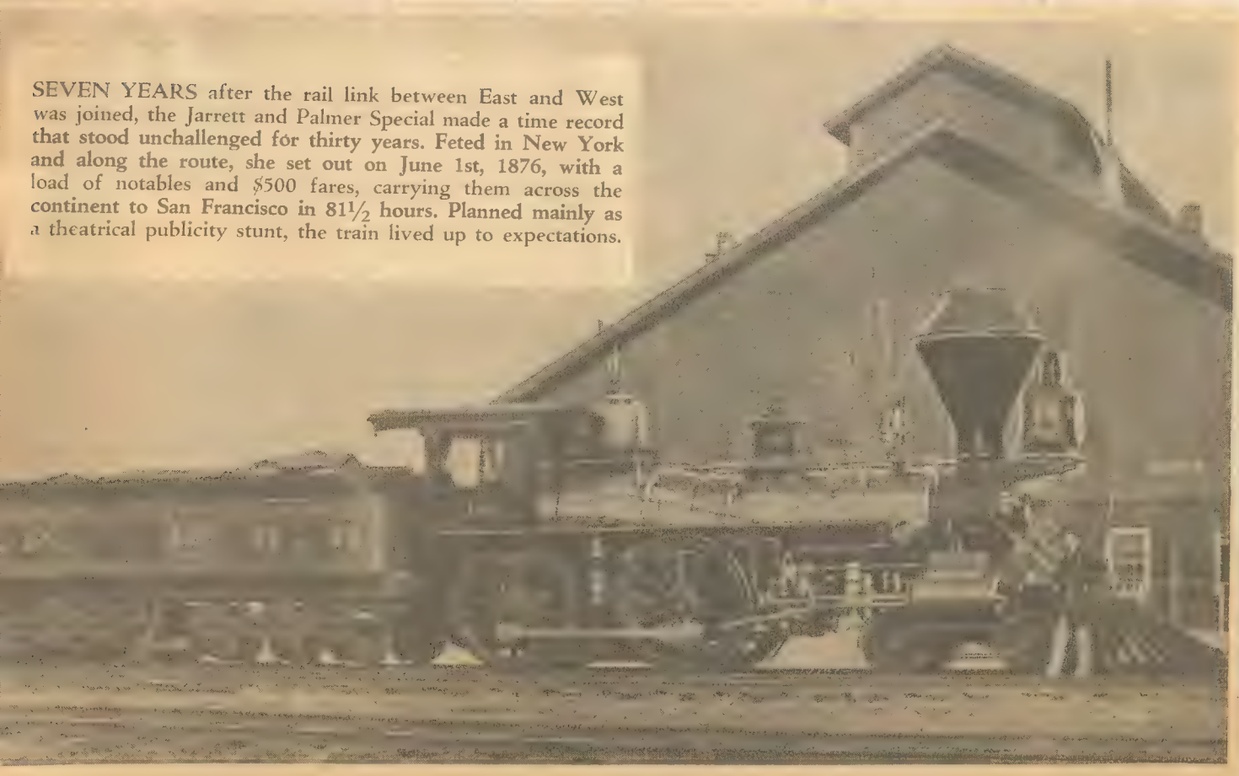
Locomotive *Bison*, Number 57 of the Central Pacific Railroad, Photographed at Rocklin, California, in 1872

The Jarrett & Palmer Special arrives at Oakland Pier June 4, 1876



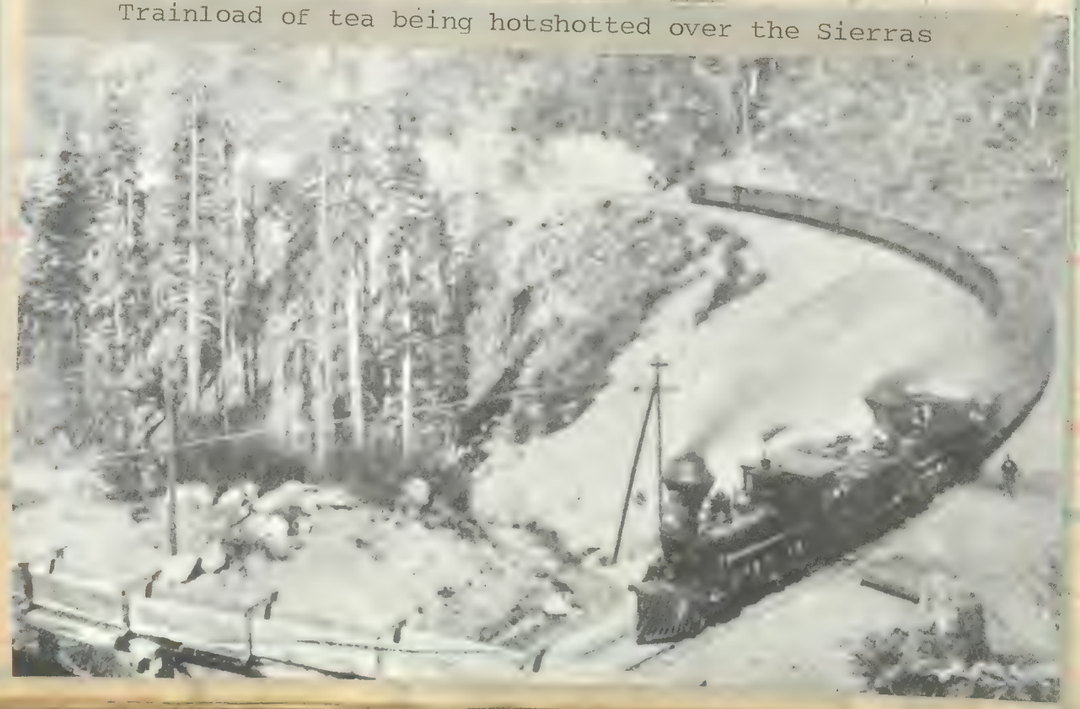
C.P. #86, the "GORILLA", one of five 10 wheelers delivered by Rogers in 1868

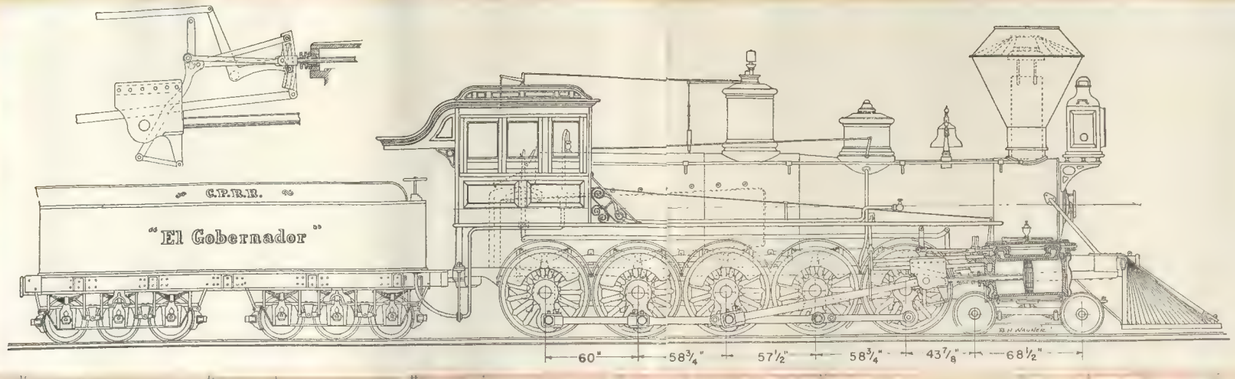
SEVEN YEARS after the rail link between East and West was joined, the Jarrett and Palmer Special made a time record that stood unchallenged for thirty years. Feted in New York and along the route, she set out on June 1st, 1876, with a load of notables and $500 fares, carrying them across the continent to San Francisco in 81½ hours. Planned mainly as a theatrical publicity stunt, the train lived up to expectations.



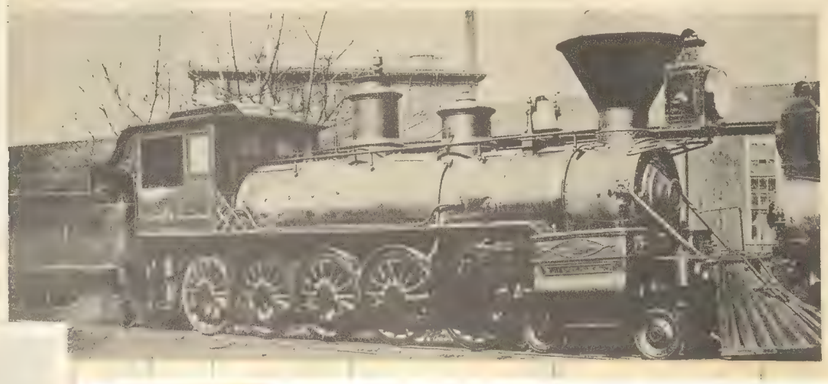
nber 149 of the Old Central Pacific (now Southern Pacific) That Helped to Haul Jarret and Palmer Special on One of the World's Greatest Runs

Trainload of tea being hotshotted over the Sierras

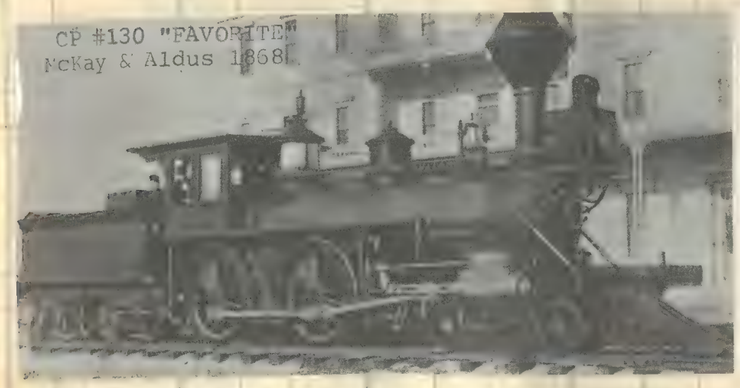




El Gobernador (below) was one of the few Mastodon, or 4-10-0, types. A project of Leland Stanford, ex-governor of California and president of the Central Pacific, for whom it was named, it was built in the CP's Sacramento shops in 1883, for the purpose, according to one historian, of building the largest engine in the world. And, weighing 73 tons, it was. But, put to work on the Tehachapi grades, it showed a weakness common to many supercolossal locomotives—failure to steam—and its wheelbase was so long that it had to stay on the main line to avoid tipping over on passing track switches. *(Southern Pacific photo)*



CP #130 "FAVORITE"
McKay & Aldus 1868



2nd #55, the first engine to be built at Sacramento Shops, June 1873. Later 1272, 1516

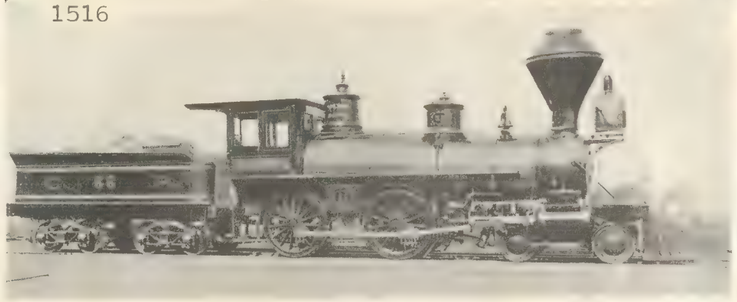


Photo by D. L. Joslyn

Central Pacific Number 55, Built at Sacramento About 1873

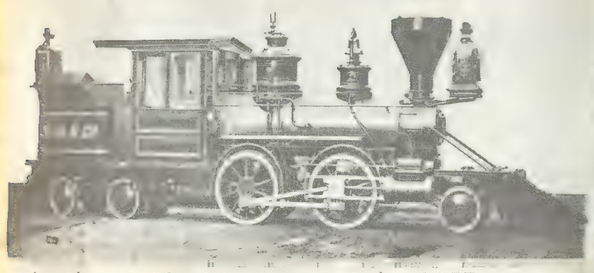
Cylinders	19x30
Drivers	54
Pressure	135
Weight Engine	123,000
Builder	CP
Date	1882

c/n 20

Central Pacific Mastadon

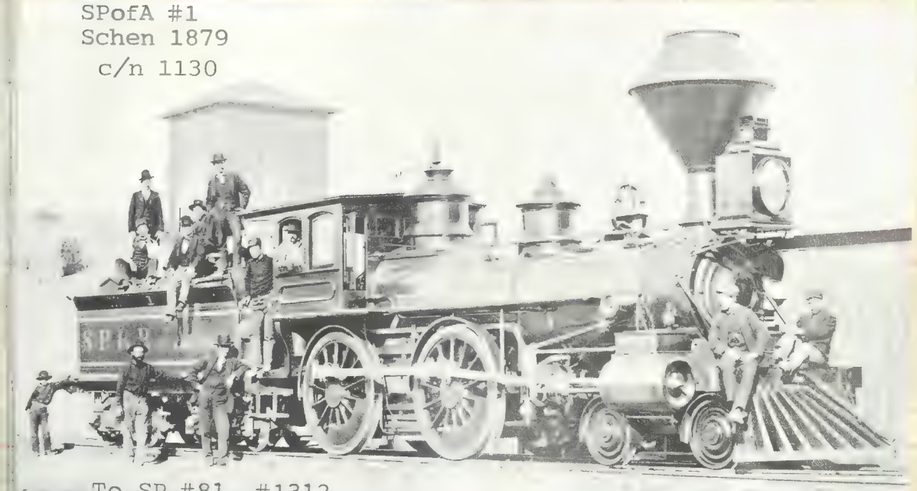
LARGEST and heaviest locomotive in the United States at the time of its completion in 1882 was the Central Pacific's No. 229. Designed by A. J. Stevens and built in the Company's shops at Sacramento, Calif., it was used to work the inclines by which the CP crossed the Sierra Nevadas, handling trains of 14 freight cars (210 tons) over 2.2 percent grades involving a succession of ten-degree curves. Predecessor of the still larger *El Gobernador*, its outstanding characteristics were a water-actuated reverse gear and the use of independent cut-off valves.

Next month: Baltimore & Ohio Mogul 600

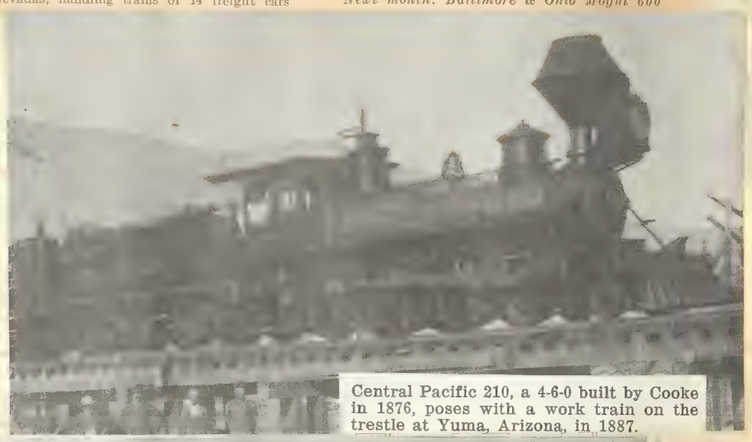


Visalia RR #2, blt by Baldwin 1877, to the S.P. in 1898 . In 1904 renoed 1204 then to 1009 as a 0-4-0T. Assigned as Bakersfield Shops #4. Noed 2442 in 1915 then to MofW #218 in 1916. Retired 1919.

SPofA #1
Schen 1879
c/n 1130



To SP #81, #1312



Central Pacific 210, a 4-6-0 built by Cooke in 1876, poses with a work train on the trestle at Yuma, Arizona, in 1887.

Cooke 1863
c/n 243

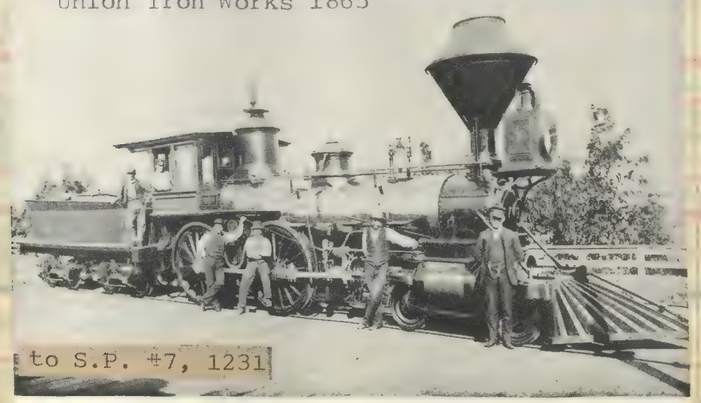
San Francisco & San José No. 5,
"San Mateo"

San Francisco & San Jose #6, "California"
First engine built by the
Union Iron Works-1865

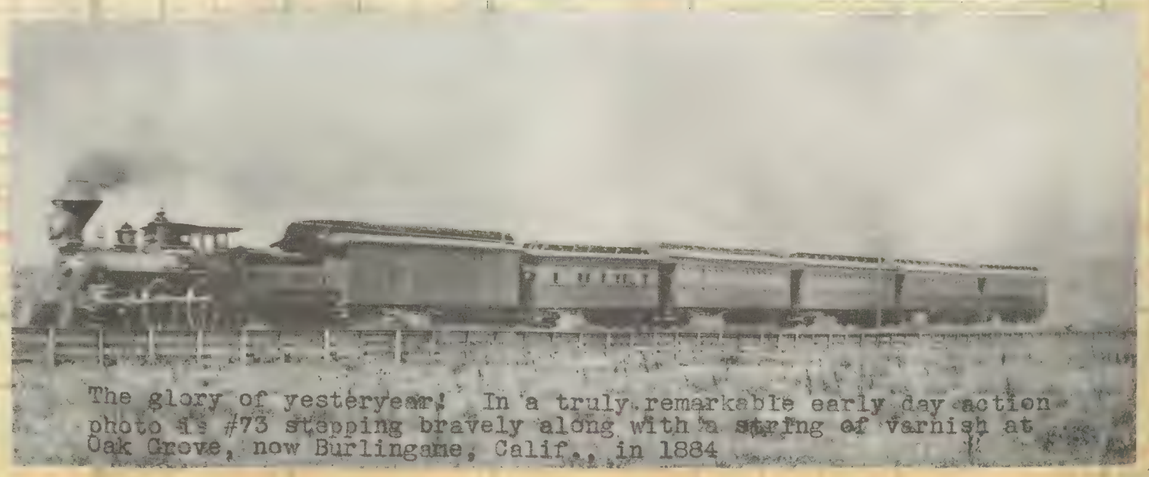
A. P. Redington

SAN JOSE WAY FREIGHT

Union Iron Works 1865



San Francisco & San José No. 7,
"Atlantic"


The glory of yesteryear! In a truly remarkable early day action photo is #73 stepping bravely along with a string of varnish at Oak Grove, now Burlingame, Calif., in 1884

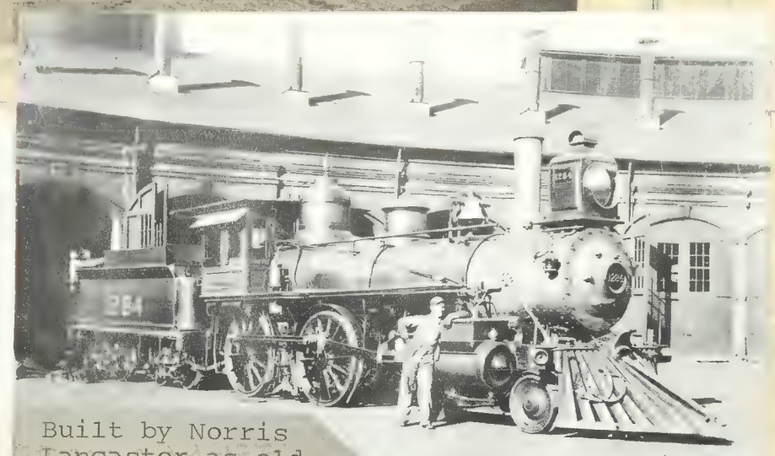
183 built by Rogers 1872
Renoed CP 1290, SP 2nd 1311

Association of American Railroads describes this as the first solid train of fruit to leave California for Eastern kets. It's a far cry from the modern refrigerator cars, but for its day it was a revolutionary experiment. The o was taken in 1884, but comes out of the files of the Southern Pacific. The train has an old Central Pacific locomotive at the head end.

c/n 2093

Stables at Lathrop, Cal.-1891

mount | Clos. No. | Sold | Amount



Built by Norris
Lancaster as old
W.P.#"F" the MERCED
in 1864. To C.P.#172 and rebl t as 4-6-0
1870. Again rebl t 1878 back to 4-4-0, later
numbered 1284, 1522. retired 1910

Schenectady 1898 1433-1439 c/n 4804
To T&NO #271

CP 244 SP 2200

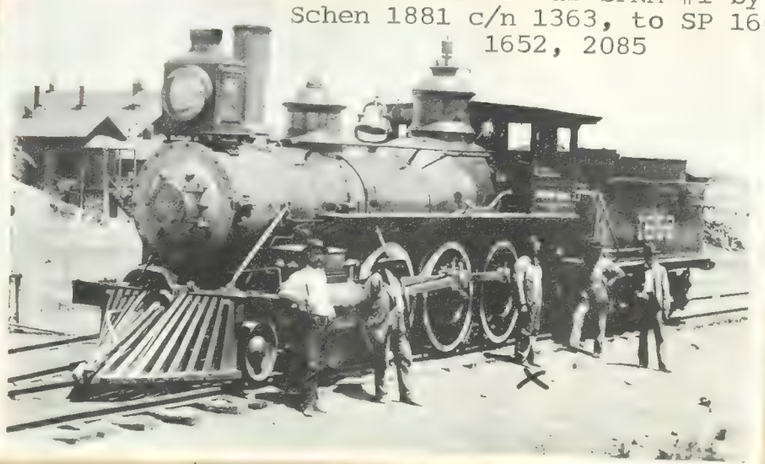
Sacramento 1887

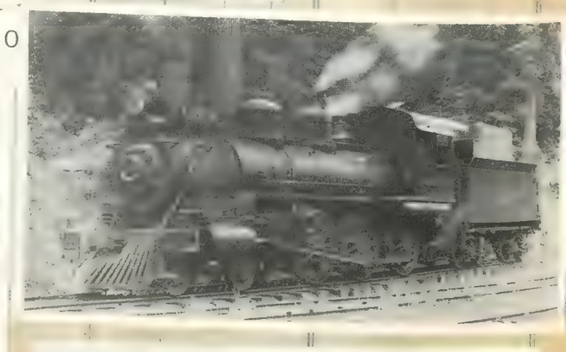
The 1351 poses with some friends in
the old L.A. Arcade Station

Three of Stevens' new 4-4-0's, Nos 219, 220 & 221, built at the Sacramento Shops in 1887, ready to go at the Sacramento stables

ooke 1895
308-1823
/n 2302

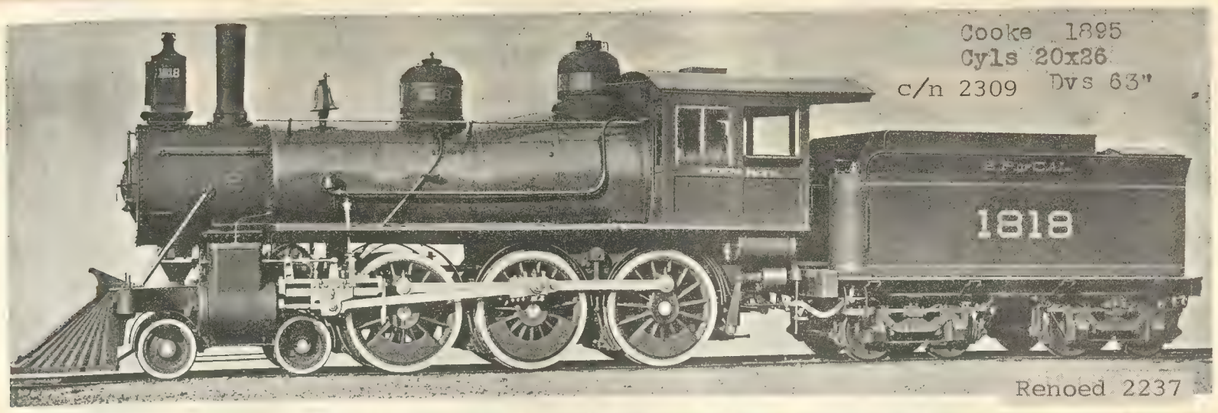
4-6-0 #1652 blt as SPNM #1 by
Schen 1881 c/n 1363, to SP 160
1652, 2085





2203 one of five 10 wheelers
blt at Sacramento 1888 and
noed CP 246-250. 2203 org #
CP 247, 1774 c/n 52

Cooke 1895
Cyls 20x26
c/n 2309 Dvs 63"



Renoed 2237

1833-1837 Schenectady 1896 c/n4478
Later #2258

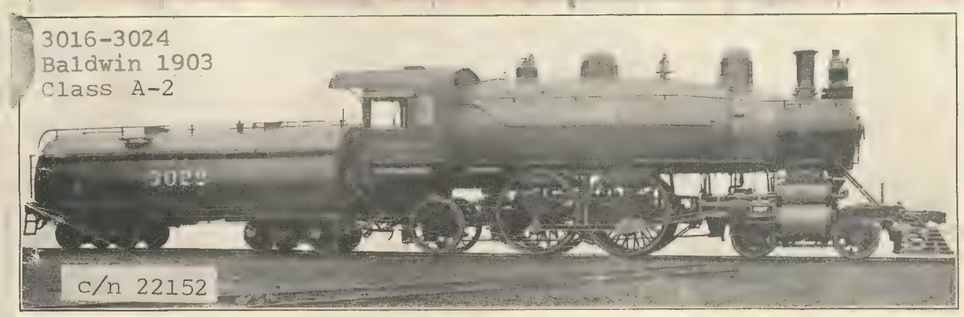
Early Type of Passenger Power Used on Southern Pacific Lines.

Southern Pacific's 292 was a pretty 4-6-0 built by Rhode Island in 1888, Shop No. 1963. She ended her days as S.P. 2184, and was once assigned to the Shasta Division in northern California. She had 18 x 24 inch cylinders and 57 inch drivers. (Courtesy of Ben W. Griffiths)

1790-1793 Schen 1892 c/n 3781
To SP class T-3
#2218

It seems impossible that the basic design of a 4-4-2 could be turned into such atrocious monsters as these A-2's. Their ungainliness was further enhanced by the whaleback tank.

3016-3024
Baldwin 1903
Class A-2



c/n 22152

Locomotive, Designed and Built by Baldwin Locomotive Works, Philadelphia, Pa.
George Burnham, Jr., '72, Joint Proprietor.

OKM

3000-3009 Baldwin 1902
Class A-1

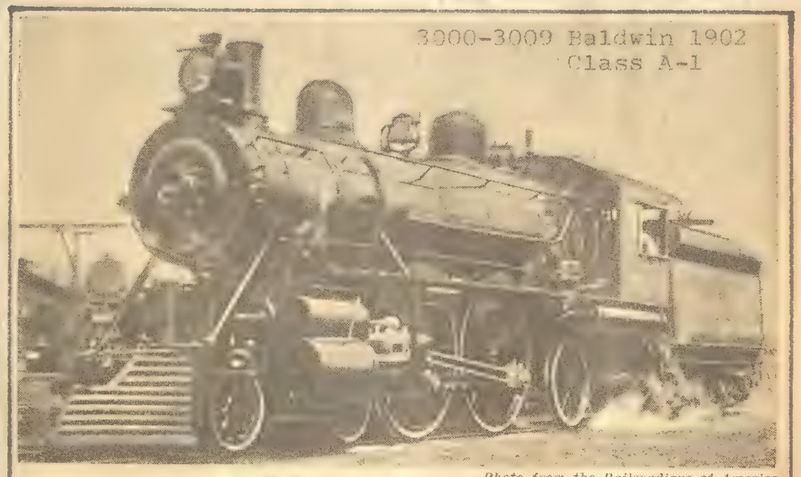


Photo from the Railroadians of America

Central Pacific's Class A-1 (16 engines) rated as one of the speediest designs of her day. Specifications were: cylinders, 15x25x28; drivers, 84; pressure, 200; engine weight, 192,250; tractive effort, 20,420

1725-1769
B L W 1901
c/n 19539

Blt 1886 at Sacramento c/n 28 as
C.P. 2nd #125, renoed 1364

1364 ready to depart Arcade Station, L.A.

1715
Cooke 1901
c/n 2625

OKM

SOUTHERN PACIFIC, NEVADA AND CALIFORNIA EXTENSION
Brakeman Jones, Standard and McLane, Lodge No. 74; Fireman Johnson, Engineer Newbill, Conductor Carnes, O. R. C. No. 503.
Photo taken at Rollie, California, Moiave Desert.

H. K. Gag

WRECK OF AN EARLY CENTRAL PACIFIC TRAIN

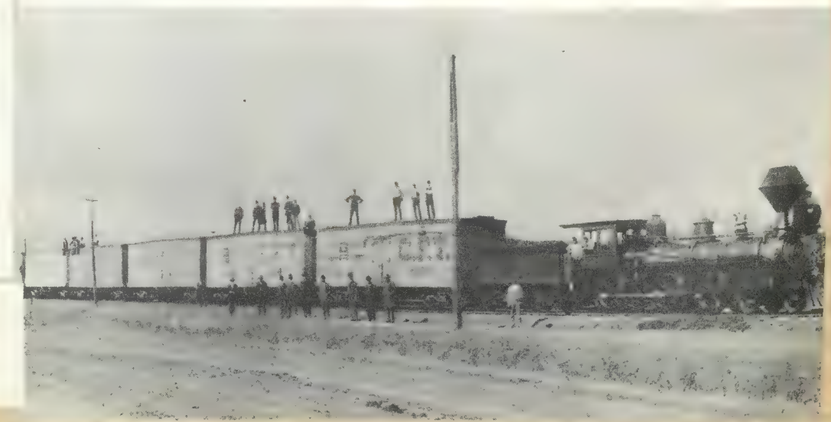
Photo by David L. Joslyn, 2104 Castro Way, Sacramento, Calif.

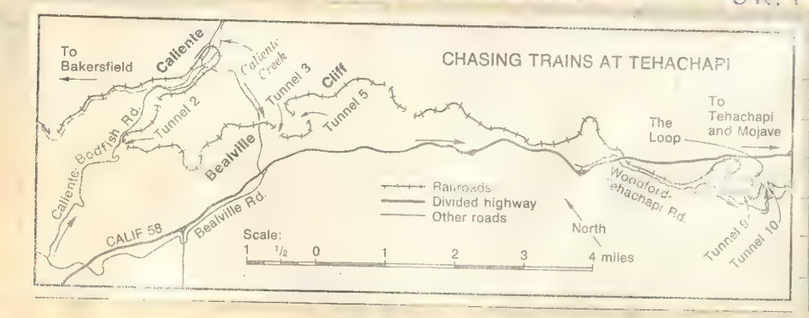
The #160 prior to being rebuilt and renoed #1652 as on opposite page.

Seven 2-6-2T's were built at Sacramento Shops in 1882 numbered 230-236. #236 renoed 1507, SP 1906, reblt as shop engine #566 and assigned to the Brooklyn Shops at Portland

Vacaville Heritage Council

An early view of a Southern Pacific fruit train at Vacaville, Calif. By 1869 Vacaville had rail connections to the East and by the mid-1870's fruit shipments had begun on a regular basis. Nearly a century ago the Sacramento Valley was a nationally recognized fresh fruit district which produced some of the earliest shipments of apricots, cherries, peaches, plums and grapes to reach urban markets. At left, the map indicates trackage in more recent years.

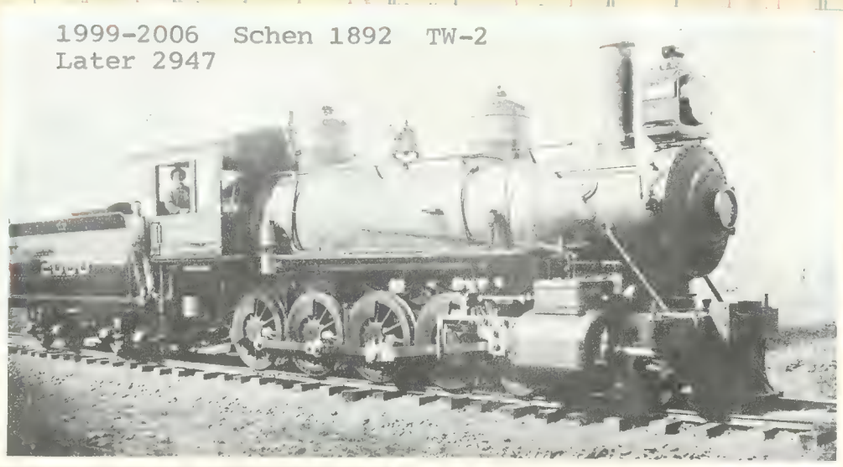




The Tehachapi Loop was a Master Stroke of Railroad Engineering. A Pair of Woodburners on the Loop in 1876 When Trains First Operated over the New Line that Linked Los Angeles with San Francisco.

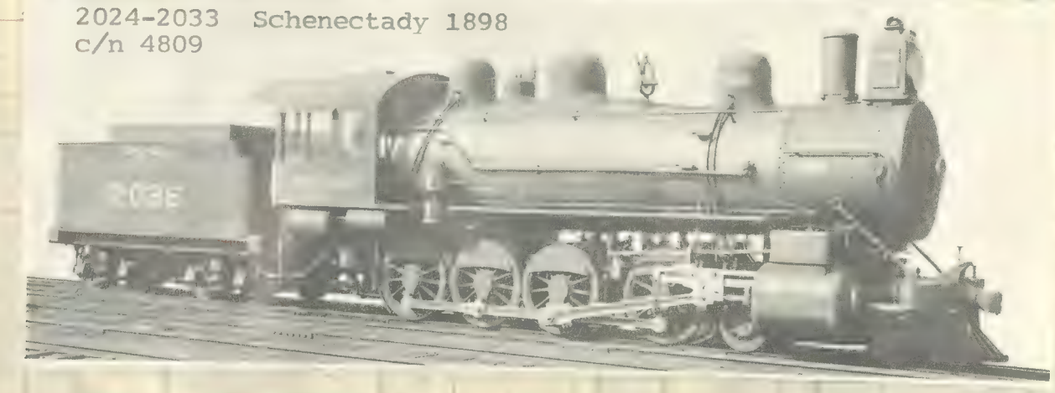
A brace of Southern Pacific 4-8-0's ready to tackle the steep Tehachapi grade near Mojave, California, in 1897. Leading engine 1986, a Schenectady cross-compound, was built in 1891 and was later Southern Pacific 2932, scrapped in 1949; the 1984, behind, was a simple Cooke built in 1882 as S.P. 78, scrapped in 1950 as No. 2931. (Three photos, Collection of G. M. Best)

1999-2006 Schen 1892 TW-2
Later 2947



2012-2020 Schenectady 1895
c/n 4304

2024-2033 Schenectady 1898
c/n 4809



other Hubbard owned by the Southern Pacific, a 4-6-0 built in 1900 by Baldwin to burn poor-grade western coal.

FERRO CARRIL DE SONORA Operated from Guaymas north to Nogales, 263 miles Built by Santa Fe interests and completed in 1882. Road leased by the Santa Fe to the Southern Pacific in 1898, sold in 1911, made part of the SPdeM in 1912.

No 18 was constructed by Baldwin in 1900 and designed to burn an inferior grade of Arizona coal. Had cyls 19x26, dvs 63", BP 250# TotWt 230,000# In 1901 became S.P.Cal. #2282, Class T-27 and was the only double cabbed engine S.P. ever owned. Was rebuilt in 1906 and retired in 1928

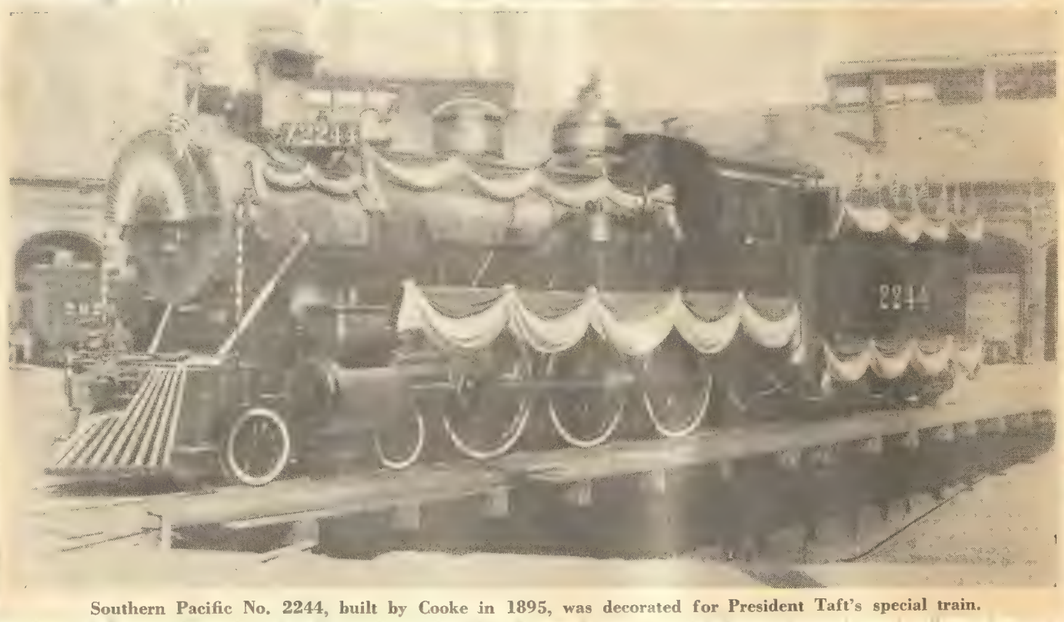
Photo by G. M. Best, 511 N. Sierra Drive, Beverly Hills, Calif.

e of the Last Old Ten-Wheelers on the Southern Pacific Is No. 2174, Constructed in Schenectady 1888 as Northern Ry. 10. Her Number Was Changed to 1010, Then to 1747, and Finally to 2174. ed on a Branch Line out of Ogden for Years, She Was Being Transferred to Mexico When This Photo Was Taken (at Los Angeles) Last December

In contrast with the abandonment of branch lines and trains today, railroads were spreading out in all directions when this photograph was taken 70 years ago. It shows the first train arriving in Santa Barbara, Calif., over a new line of the Southern Pacific from Saugus through Fillmore, Santa Paula, Ventura and Carpinteria. Most of the town turned out to greet the train at the State Street station.

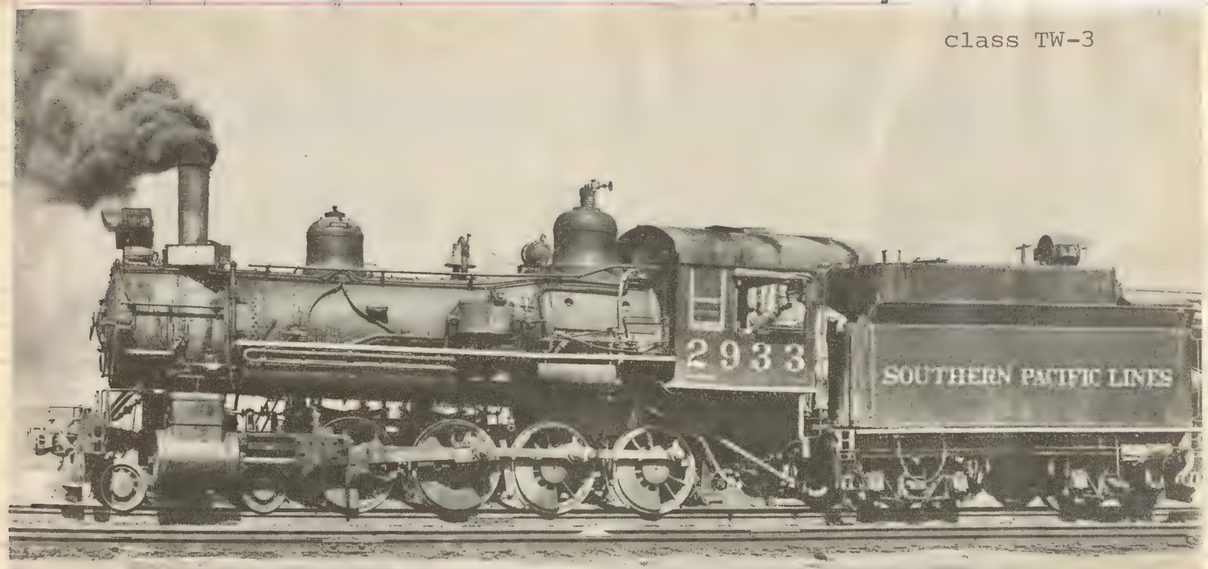
DAWN OF A NEW ERA was recorded around 1890 when the camera caught the image of the first Southern Pacific freight train to be equipped with Westinghouse automatic air brakes. The automatic air brake was a wonderful improvement over the old "straight air" brake, causing an automatic application on both sections of a train that broke in two. With the former air brake such an accident not only failed to halt the rear portion of a parted train, but also caused the loss of brakes on the forward section, contributing to many accidents. The 4-4-0 handling this experimental train was Southern Pacific's Engine 380, a coal burner built by Schenectady in 1889. (Courtesy of Southern Pacific)

On the San Joaquin Valley line in the early 80's



Southern Pacific No. 2244, built by Cooke in 1895, was decorated for President Taft's special train.

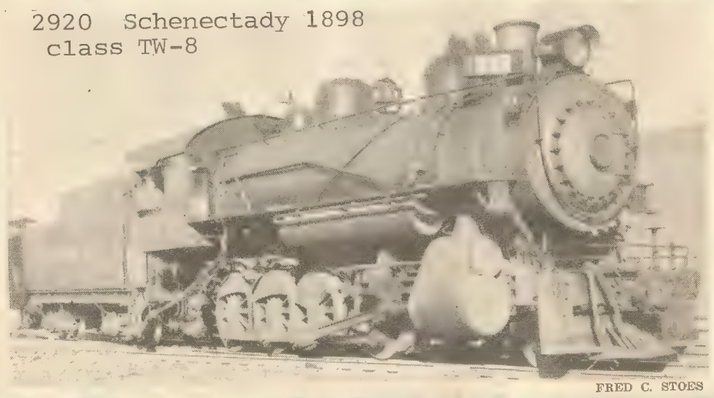
class TW-3



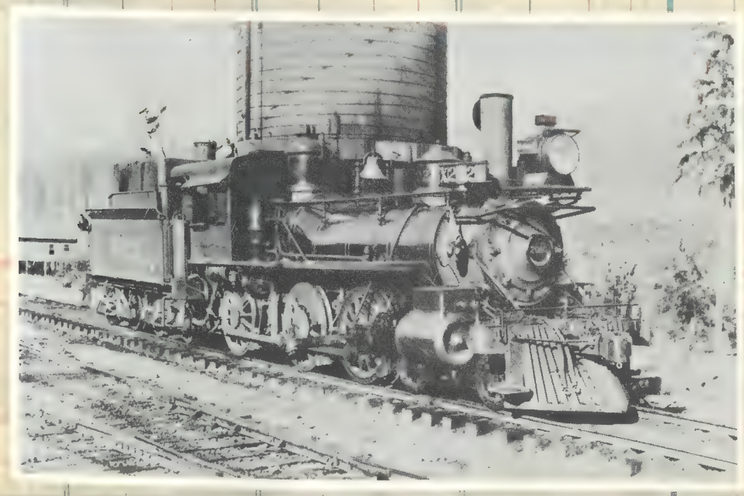
TWELVE-WHEELER 2933 (Schenectady, 1892) of Southern Pacific, shown at Los Angeles on September 6, 1941, was built as No. 1987 and next carried No. 2833.

3760

2920 Schenectady 1898
class TW-8

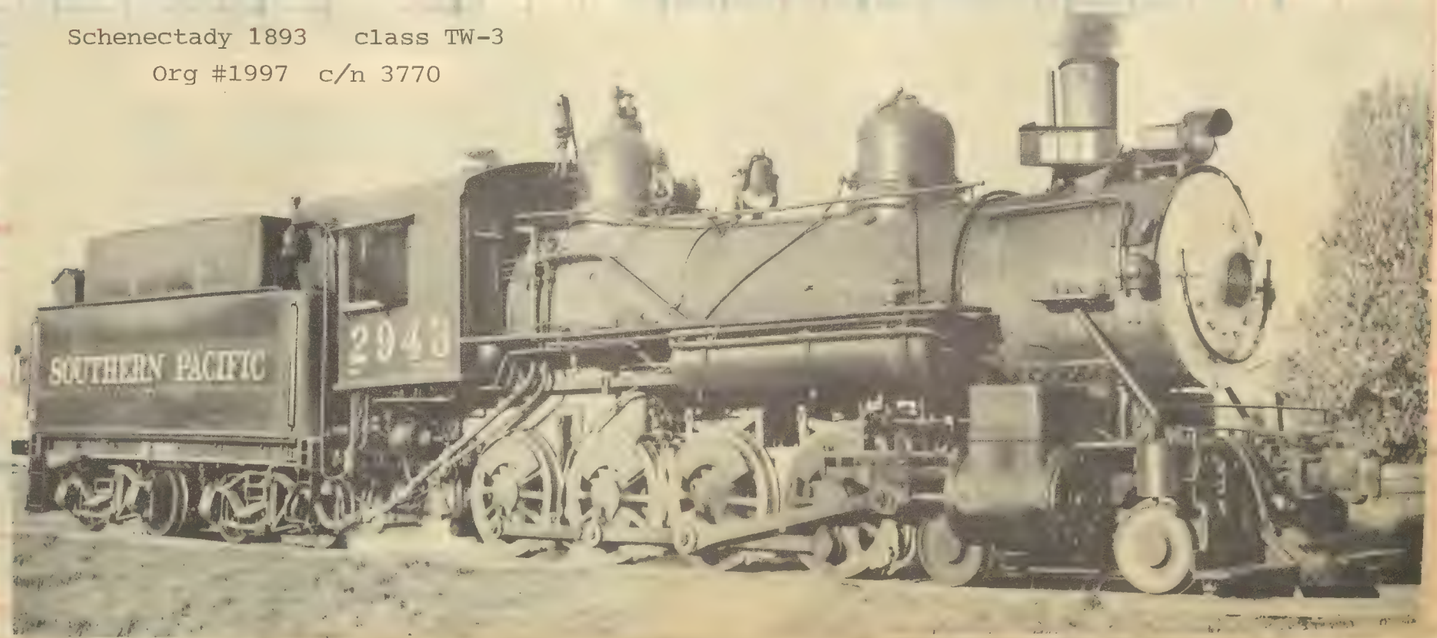


FRED C. STOES



The 2025, a veteran 4-6-0 at the Timber tank, was refered to as the "Little Dutch Clock" on the Tillamook branch. Blt by Schenectady 1875 as C.P.#194, later noed 1559 then 2025. Classed T-16, this photo made in 1914. Retired 1921

Schenectady 1893 class TW-3
Org #1997 c/n 3770

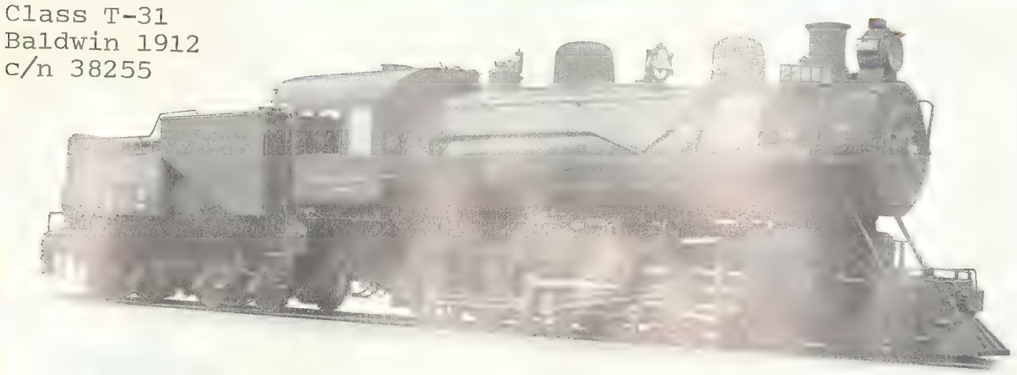


SELLER
DATE
FORM | DESTINATION | Amt.

Amount | Clos. No. | Sold | Amount

Train #17, the Portland-Roseburg local at Salem
2283-2300 class T-26
Baldwin 1902

2353-2362
Class T-31
Baldwin 1912
c/n 38255



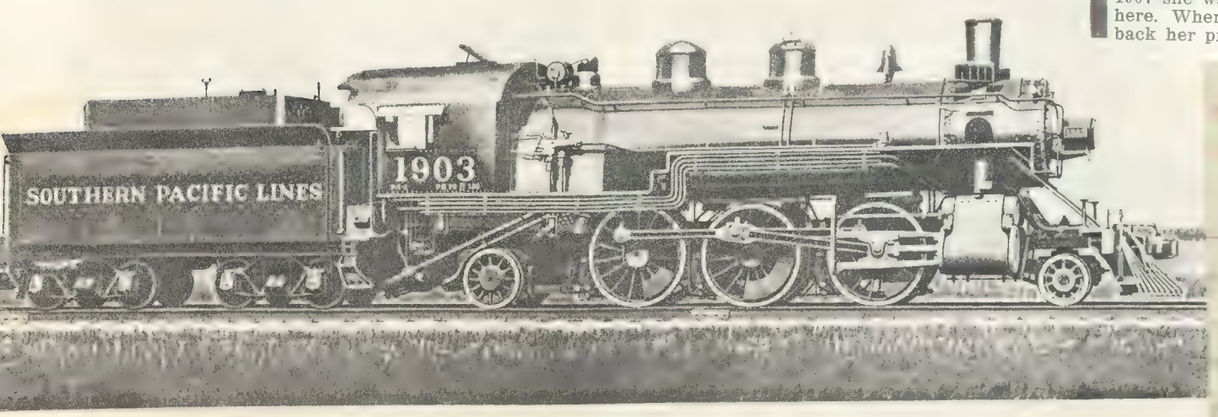
Ten-wheeled Locomotive, Southern Pacific Co.

Cylinders	22″ x 28″	Tubes, number	53⅜″, 28; 2″, 204	Wheel base, driving	13′ 10″	Weight, total engine	208,750 lb.
Drivers, diam.	63″	" length	15′ 0″	" " total engine	25′ 10″	" " and tender	346,000 lb.
Boiler, diam.	72″	Grate area	32.1 sq. ft.	" " " " and tender	58′ 01¼″	Tank capacity, water	7,000 U. S. gal.
Steam pressure	200 lb.	Water heating surface	2,402 sq. ft.	Weight on drivers	162,500 lb.	" " oil	2,940 "
Firebox	124″ x 37 1/4″	Superheating surface	483 sq. ft.			Tractive force	36,500 lb.
Tubes, diam.	5⅜″ & 2″						

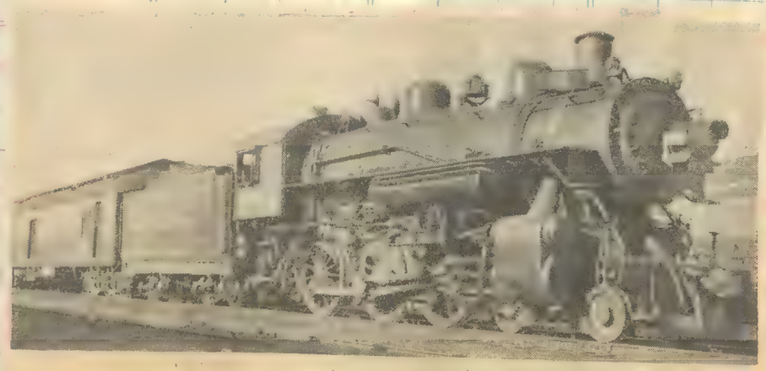
2363-2370 class T-32 c/n 53318 Brooks 1913

T-10 2138 at Timber Rhode Is 1888

WEST COAST BOOMER. This Schenectady 10-wheeler was built in 1882 as the No. 45 of the Southern Pacific of New Mexico. She later became Southern Pacific's 204, then 1678, and was finally assigned the number 2090. In 1907 she was sold to the Coos Bay, Roseburg & Eastern Railroad & Navigation Company and numbered 4, as shown here. When the Southern Pacific absorbed the latter road in 1915, the old 4-6-0 returned to the fold and was given back her previous number, 2090. She was scrapped in 1918. (Courtesy of Guy L. Dunscomb)



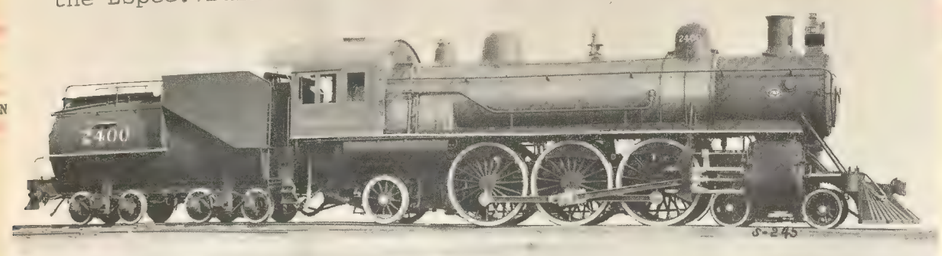
PR-1 (4 engines) 1900-1903. These four, built by Baldwin in 1902, were formerly EP&NE 20-23 and EP&SW 134-137, and came to the Southern Pacific in 1924. In 1925 they were restenciled to SP de M 701-704. But the 704 was not delivered to the SP de M but instead was sent to San Francisco, renumbered to 1903 and converted from coal to oil. It was used in commute service until the Depression when it was set aside and was broken up in 1934. The other three were scrapped on the SPdeM in 1934 and 1935.



Kenneth M. Stow

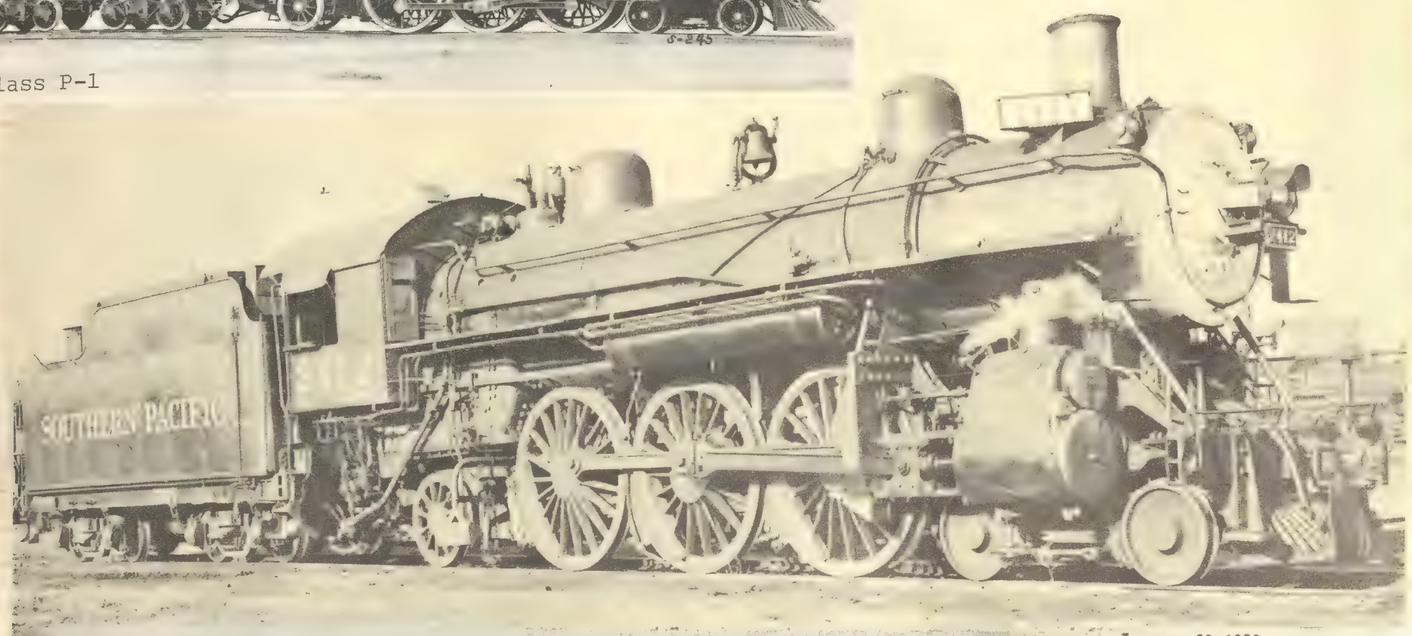
SOUTHERN PACIFIC'S "DEL MONTE EXPRESS" AT SAN JOSE, CAL.
Engine 2369 was about to pull out of the station on a run between San Francisco and Pacific Grove, Cal., when this photo was snapped.

Schenectady's 30,000th engine was this initial Pacific for the Espee. Built in 1904 and noed 2400-2404



class P-1

2405-2419
c/n 28673
Ret 1951



Fourty one years of loyal service and still on the payroll! One of the "Harriman Standards" that was delivered by Baldwin in 1906. Here, at Tracy, Calif., she gives her weary bones a rest-September 1947

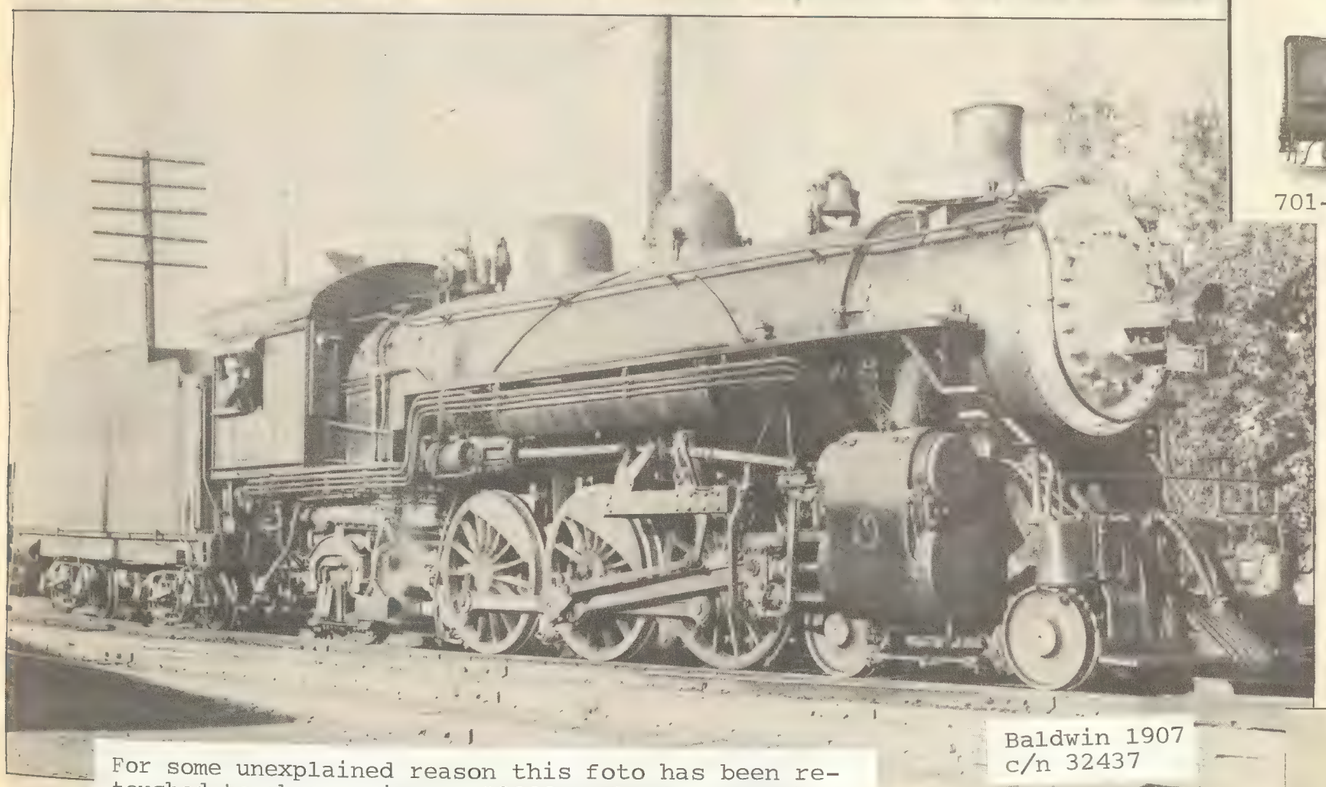
1917 23

ONE OF THE PACIFIC TYPE LOCOMOTIVES, BUILT AT THE SACRAMENTO SHOPS OF THE SOUTHERN PACIFIC COMPANY. IT IS USED IN PASSENGER SERVICE, BURNS OIL, AND DEVELOPS A TRACTIVE EFFORT OF 31,420 POUNDS. OKM

SOUTHERN PACIFIC SYSTEM'S LOCOMOTIVE 2459

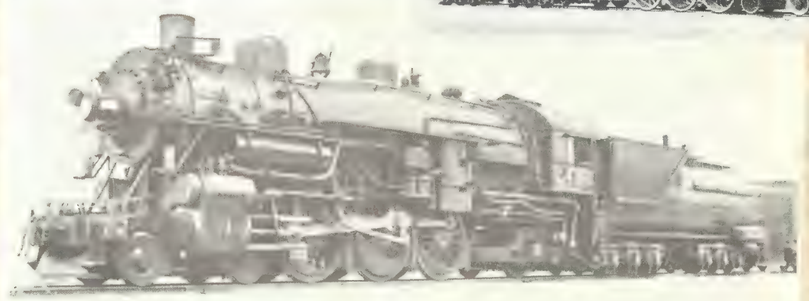
The 2459, before and after, was built in 1917 and as she looked after two decades of service and was not retired until 1952

701-702 c/n 5424 Lima 1917 to S.P. 2476 (1922)



Baldwin 1907
c/n 32437

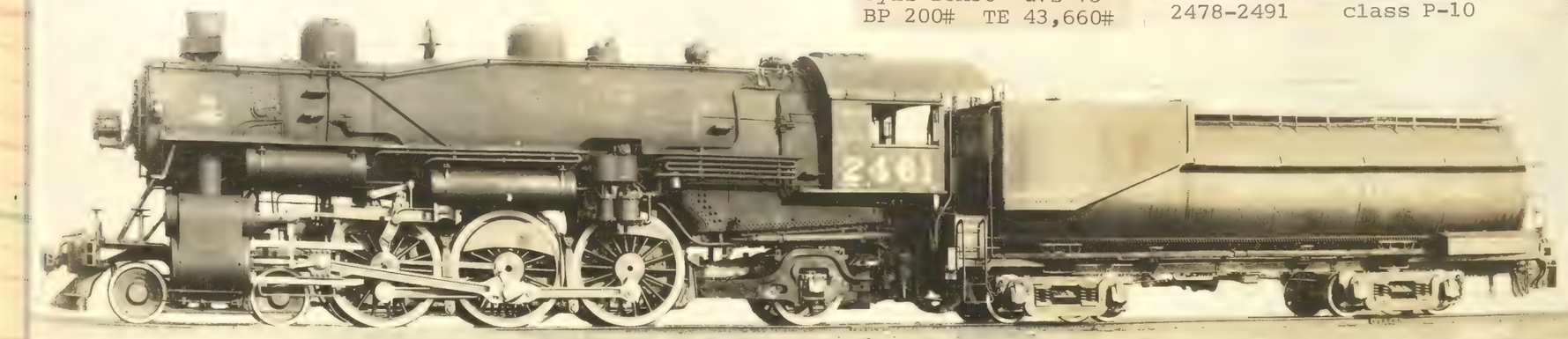
For some unexplained reason this foto has been re-touched to show engine as #3000. The SP never had a 4-6-2 that carried this number. Appearance would indicate this engine former EP&SW 140 which became SP 3100 in 1924



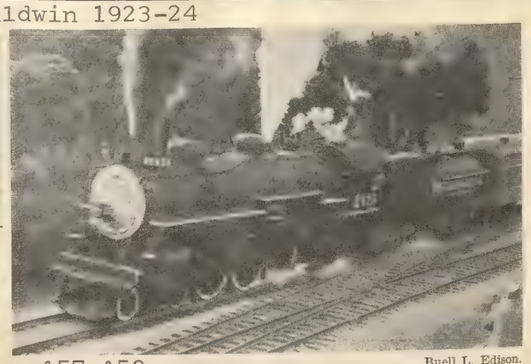
c/n 57634

Class P-8, 2461-2475
Baldwin 1921
Cyls 25x30 dvs 73"
BP 200# TE 43,660#

2478-2491 class P-10 Baldwin 1923-24



c/n 54396



'57-'58 Buell L. Edison.

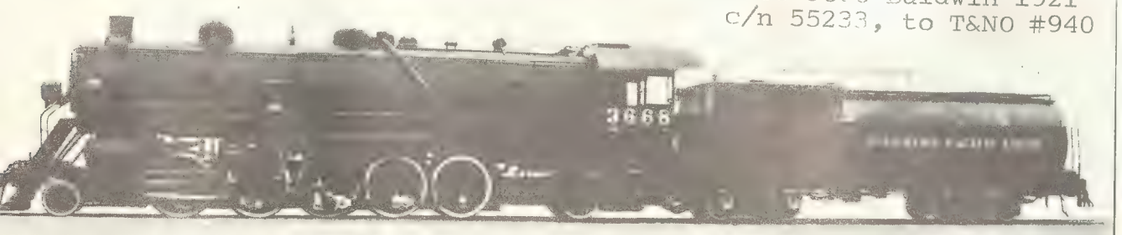
FAREWELL? Central Coast Railway Club sponsored December 31-January 1 steam junket behind Southern Pacific 4-6-2 2475. It may have been last steam run out of club HQ in San Jose, Calif.

3600-3610

Brooks 1917
c/n 57972

"C.P.Huntington" Cooke 1863

3668-3680 Baldwin 1921
c/n 55233, to T&NO #940

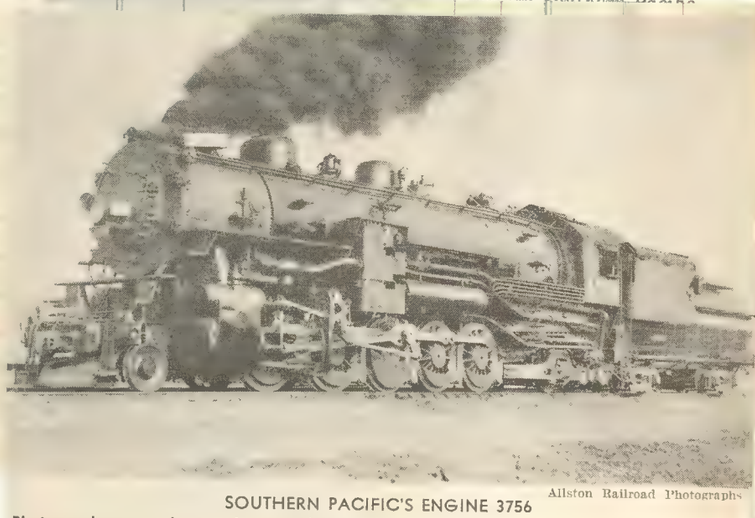


3611-3651 Baldwin 1919
c/n 51862. In 1929 to
T&NO #956

Courtesy Southern Pacific

Fig. 71—Santa Fe (2-10-2) Oil Burning Locomotive for Freight and Passenger Service. Equipped with Feedwater Heater, and Locomotive Booster. Built for Southern Pacific Lines by the Baldwin Locomotive Company.

Gage	4 ft. 8½ in.	Heating Surface, Tubes and Flues	4,722 sq. ft.
Cylinders	29½ in. x 32 in.	Heating Surface, Firebox including Combination Chamber	381 sq. ft.
Steam Pressure	200 lbs.	Heating Surface, Total	6,432 sq. ft.
Diam. of Drivers	63½ in.	Heating Surface, Superheater	1,329 sq. ft.
Tractive Effort	71,150 lbs.	Grate Area	82.5 sq. ft.
Tractive Effort with Booster	84,650 lbs.	Weight on Drivers	306,000 lbs.
Driving Wheel Base	22 ft. 10 in.	Weight, Total	398,000 lbs.
Total Wheel Base	42 ft. 4 in.	Fuel	Oil



Allston Railroad Photographs

SOUTHERN PACIFIC'S ENGINE 3756
Photograph was made near Los Angeles while the engine's smoke deflector was being tested for tunnel work.

3668-3717 c/n 55379 Baldwin 1921

2-10-2 TYPE LOCOMOTIVE BUILT FOR THE SOUTHERN PACIFIC LINES. RAILWAY COMPANY'S CLASS F-4

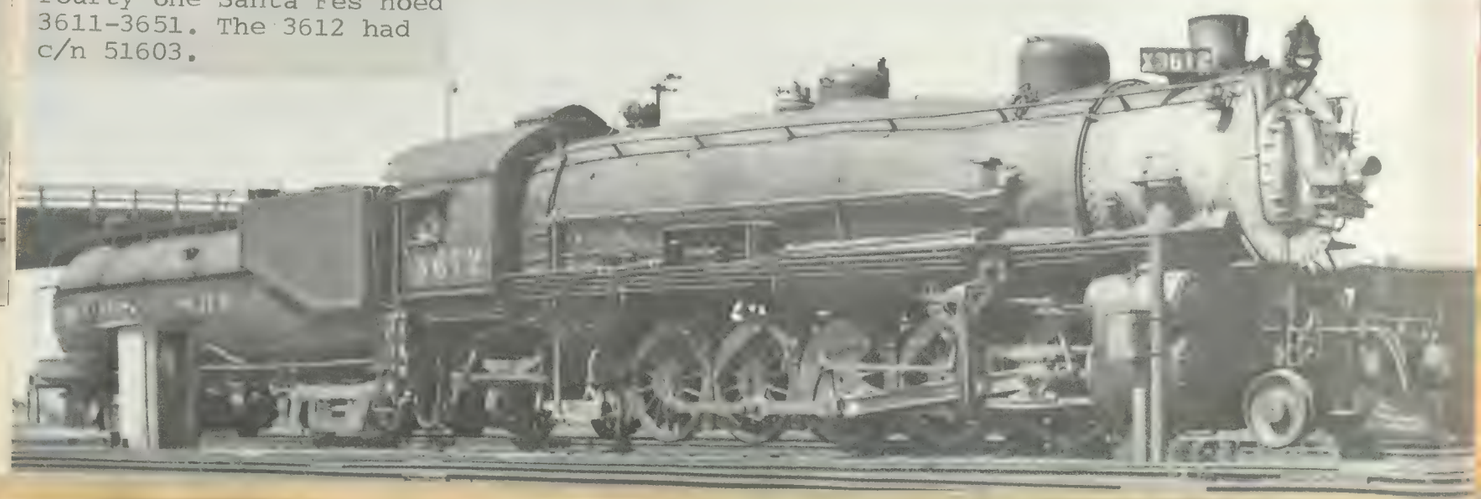
Cylinders, 29½ x 32 inches. Working pressure, 200 pounds. Water heating surface, 5,103 square feet. Superheating surface, 1,329 square feet. Grate area, 82.5 square feet. Driving wheels, diameter, 63½ inches. Weight, in working order, engine, 398,000 pounds; engine and tender, 621,000 pounds. Length, engine and tender, 97 feet 3¼ inches. Tractive force, 75,150 pounds. Service, freight.

3718-3763 c/n 57620 Baldwin 1923

Tonnage on the move near Burbank

Heavy Freight Locomotive of the Santa Fe (4-10-2) Type Used by the Southern Pacific Lines.

In 1919 Baldwin delivered fourty one Santa Fes noed 3611-3651. The 3612 had c/n 51603.



Clos. No. | Sold | Amount | C

The Daylights

(4 trains)

Weight of train:	1,352,000 lb. (cars only)
Consist: Morning Daylights: (2 newer trains)	14 cars—1 chair-baggage; 7 chair; 1 tavern; 1-3 car unit comprising coffee shop, kitchen and diner; 1 parlor; 1 parlor-observation.
Noon Daylights: (2 older trains)	14 cars—1 baggage-chair; 8 chairs; 1 tavern; 1 coffee shop; 1 diner; 1 parlor; 1 parlor-observation.
Placed in service:	March 21, 1937—(2 original trains) January 10, 1940—(2 Morning Daylights)
Operated between:	San Francisco and Los Angeles
Daily mileage per train:	470
Overall scheduled speed:	49.5 m.p.h. Morning Daylights 48.7 m.p.h. Noon Daylights

Remarks: The original Daylights, with 1 train operating in each direction daily, proved so popular that on January 10, 1940—2 additional trains were added to the route and were named the Morning Daylights travelling in each direction between San Francisco and Los Angeles while the older trains were re-named the Noon Daylights. From March 21, 1937 to March 29, 1940 a single pair of Daylights carried 872,365 revenue passengers averaging 789 persons daily. For the 6-month period beginning April 1, 1940 all 4 trains have carried a total of 275,959 revenue passengers, an average of 1,508 passengers per day.

"THE *Daylights*"...

Daylight at San Francisco

Southern Pacific's Noon Daylight swings around a curve shortly after leaving San Francisco for its 580-minute dash to Los Angeles, 470 miles to the south via the Coast Line. Residents of the two cities get identical service on three trains; the Morning Daylights leave both terminals at 8:15, the Noon Daylights leave simultaneously at 12:15, and the San Francisco Larks leave both stations at 9 p. m. for an overnight run. Besides these, there are two other Coast Line and three other San Joaquin Valley trains.

Southern Pacific.

Diner

Parlor

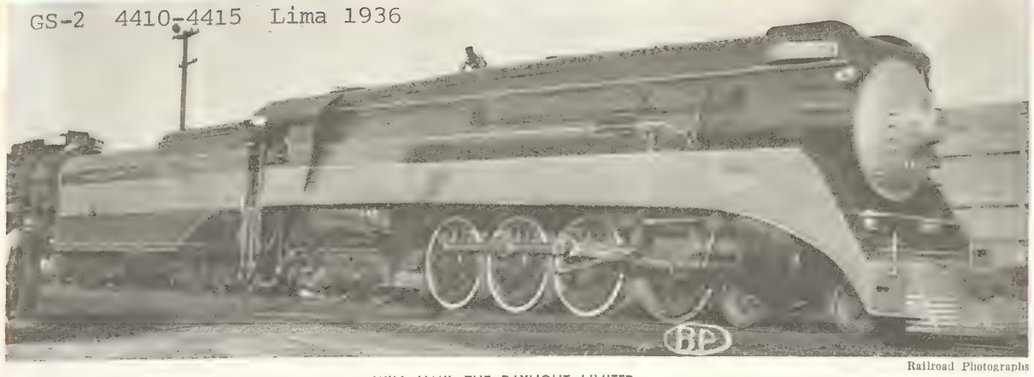
Coffee Shop

Tavern

In Santa Susanna Pass

Daylight hogger and brains synchronize watches. Timepieces have always been vital machines in business of getting over the road

GS-2 4410-4415 Lima 1936



Railroad Photographs

WILL HAUL THE DAYLIGHT LIMITED

A full length view of one of the streamlined steam locomotives recently completed by the Lima Locomotive Works for the Southern Pacific. The locomotives will haul the Daylight Limited between San Francisco and Los Angeles.

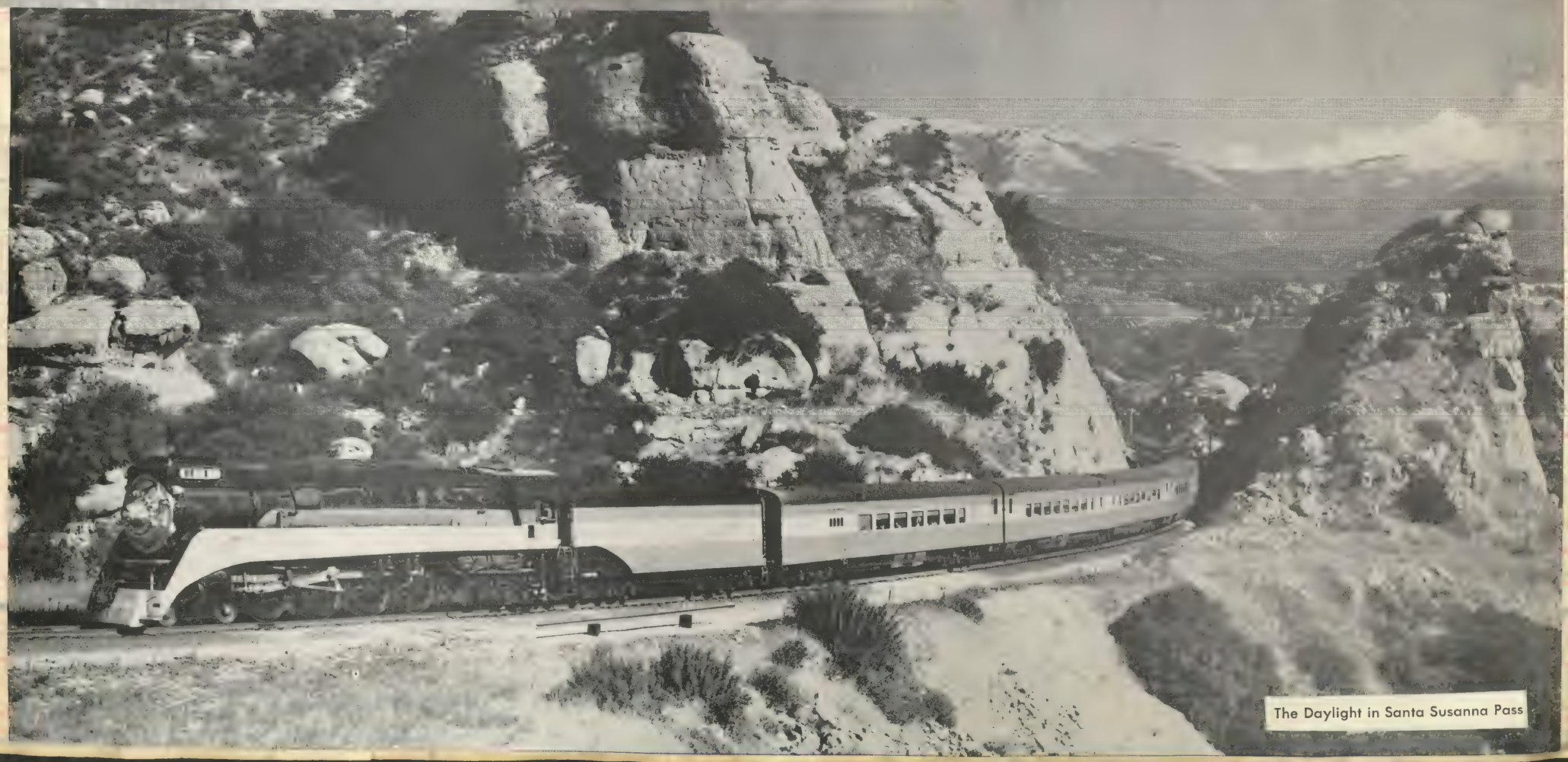
Loafing along at a casual and exquisite forty miles an hour near Santa Barbara, California, the Southern Pacific's famed Daylight poses for its photograph against the desolate mountains that skirt the Pacific Ocean for hundreds of miles. Characteristic of the Espee's orange and silver painted giant Northern type engines is the smoke and steam lifter developed by General Superintendent of Motive Power George McCormick and Mechanical Engineer F. E. Russel, with details worked out at the Lima Locomotive Works, builders of the road's Daylight class locomotives. This deflector and the "skyline casing" which encloses sand domes and other operating fixtures runs the length of the boiler lagging and has been so sightly and successful that the Espee is adapting it to many older locomotives

1st 99 in Salinas Valley

Coast Line

NORTHBOUND	99	71	63	1	75	75–73	349
Lv Los Angeles	* 8 15	* 8 20	* 6 05	* 8 00	* 9 00	*9 00	* 7 00
Lv Glendale	8 39	8 46	6 31	8 24	9 24	9 24	7 25
Lv Ventura		10 32	8 12 c	9 53	e10 53	10e53	9 20
Lv Santa Barbara	10 35	11 35	9 05	10 42	11 42	11 42	10 15
Lv San Luis Obispo	12 58	2 58	12 12	1 40	2 40	2 40	
Lv Salinas	3 39	6 45	4 16	"	5 46	5 46	
Lv Castroville		f 6 57	f 4 29	"			
Lv Watsonville Junction		7 26	5 01	5 33	6 31	6 31	
Ar San Jose	5 00	8 40	6 21	6 51	7 43	7 43	
Lv San Jose	5 08		* 7 45	7 54		7 54	
Ar Fruitvale (To Alameda)	6 42		9 09	8 55		8 55	
Ar Oakland (1st St.)	6 52		9 17	9 07		9 07	
Ar Oakland Pier	7 00		9 25	9 17		9 17	
Ar San Francisco (Mkt St.)	7 32		9 52	9 52		9 52	
Lv San Jose	5 02	8 45	6 30	7 00	7 50		
Ar Palo Alto		9 10	6 52 b	7 22 b	8 12		
Ar Burlingame		9 33	7 16 b	7 41 b	8 31		
Ar San Francisco (3rd St.)	6 00	10 00	7 50	8 10	9 00		
Lv San Diego (Santa Fe Ry.)	* 8 00	* 2 30	* 4 30	* 7 30			
Ar Los Angeles	10 30	6 00	7 00	10 30			

No. 99—Daylight. Daily.
New Streamlined, Air-Conditioned Train. All seats must be reserved in advance. Passenger Agent, Porter and Maid service. Radio, Chair Cars, Coffee Shop, Dining Car, Tavern Car, Parlor Car, Parlor Observation Car.
Meal service in Coffee Shop—Breakfast 30c to 60c; Luncheon and Dinner 45c to 75c; also a la carte.
Meal Service in Diner—Breakfast from 50c up; Luncheon and Dinner from 90c up; also a la carte.



The Daylight in Santa Susanna Pass

28
1024-1033
c/n 2650
Org #314

In the more interesting past of railroading, even lowly switch engines were oft-times proudly painted and cared for, but they don't shine 'em up like this any more. Southern Pacific No. 1033 built by Schenectady in 1888, was scrapped in 1929. Picture is believed to have been taken about 1926.

R. H. McFarland

LAST OF THE OLD SCHENECTADY GOATS

ocomotive 1040 of the Southern Pacific was built at Schenectady, N. Y., in 1893 and put in service at Bay Shore Shops, San Francisco. On the tank is painted the railroad's emblem. In 1937 the engine was converted into a stationary boiler for steaming out oil cars on the repair track. Photograph taken at Bay Shore in March, 1937.

Kenneth M. Stowe

SOUTHERN PACIFIC'S LOCOMOTIVE 1249 AT BAYSHORE SHOPS

YARD GOAT DE LUXE

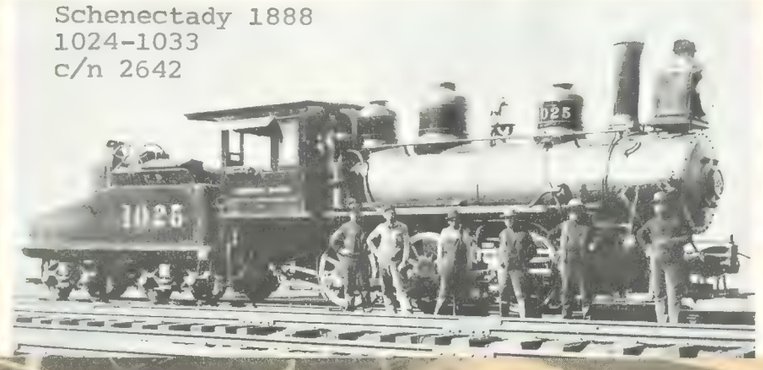
Probably the most exquisitely tended switching engine in the world is this aristocrat among yard goats which reshuffles varnish trains on the Southern Pacific tracks at Sacramento. Cylinder heads, bell, whistle, number plate, headlight case, injectors and all the boiler mountings in the cab are nickel-plated. Other parts are painted in silver, and tires, motion, reverse gear, hand-rails and such are burnished like mirrors.

D. L. Joslyn

No 1182, a S-8 class, Baldwin 1911
enjoys a rest at Eugene 1938

Amount

Schenectady 1888
1024-1033
c/n 2642



Now on static display
City Park-Martinez, Cal

Like other steam locomotive backshops, the Southern Pacific shops at Sacramento were complicated, noisy, and greasy.

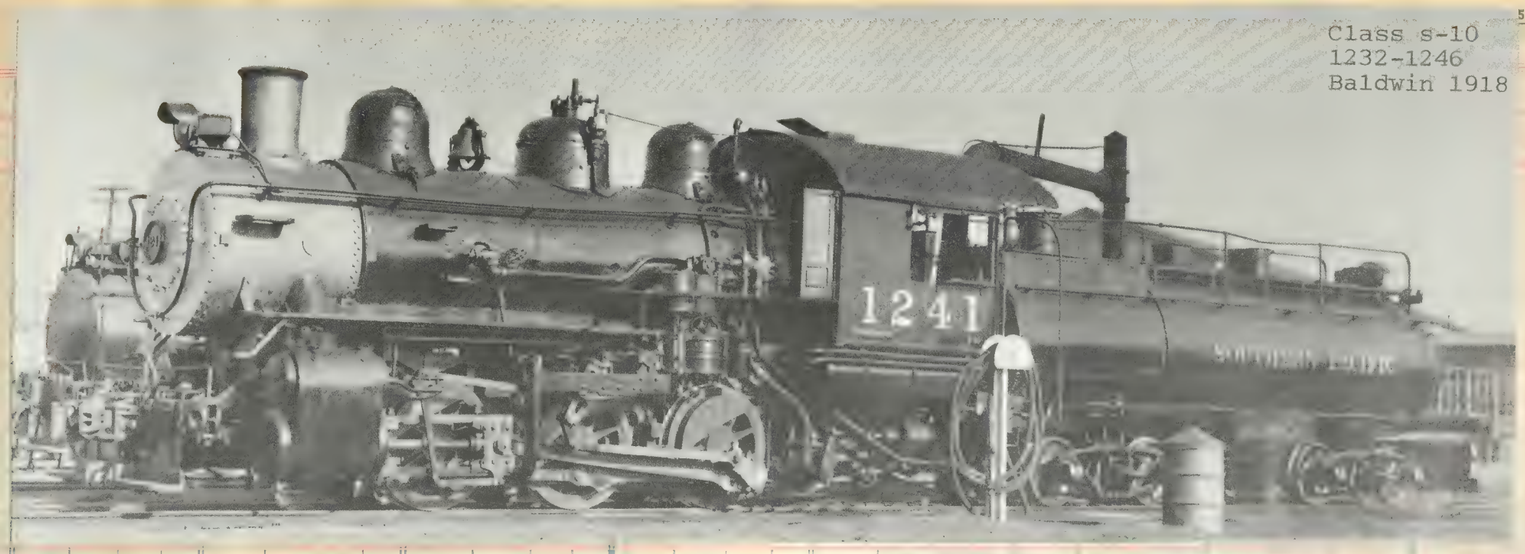
1263-1278
Sacramento 1921

1285-1295 Class S-14
Lima 1924

) No. 1289, with stainless-steel numbers and letters, at Los Angeles Union Station 20 years ago.

5 1000 bks. (Eureka 461)
Printed in U. S. A.
CUT HERE To Make Short Sheet

Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount



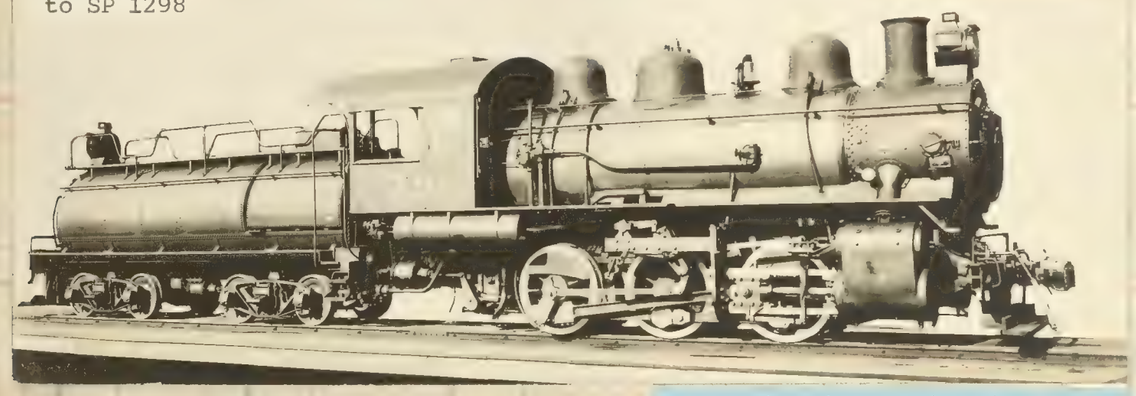
Class s-10
1232-1246
Baldwin 1918

1263-1278
Sacramento 1921

#1269, Sacramento 1921,
is still operational

c/n 46313
to SP 1298

Baldwin 1917



On static display in City Park,
Santa Cruz, Cal

Courtesy Jim Morley, 2635 Etna St., Berkeley, Calif.

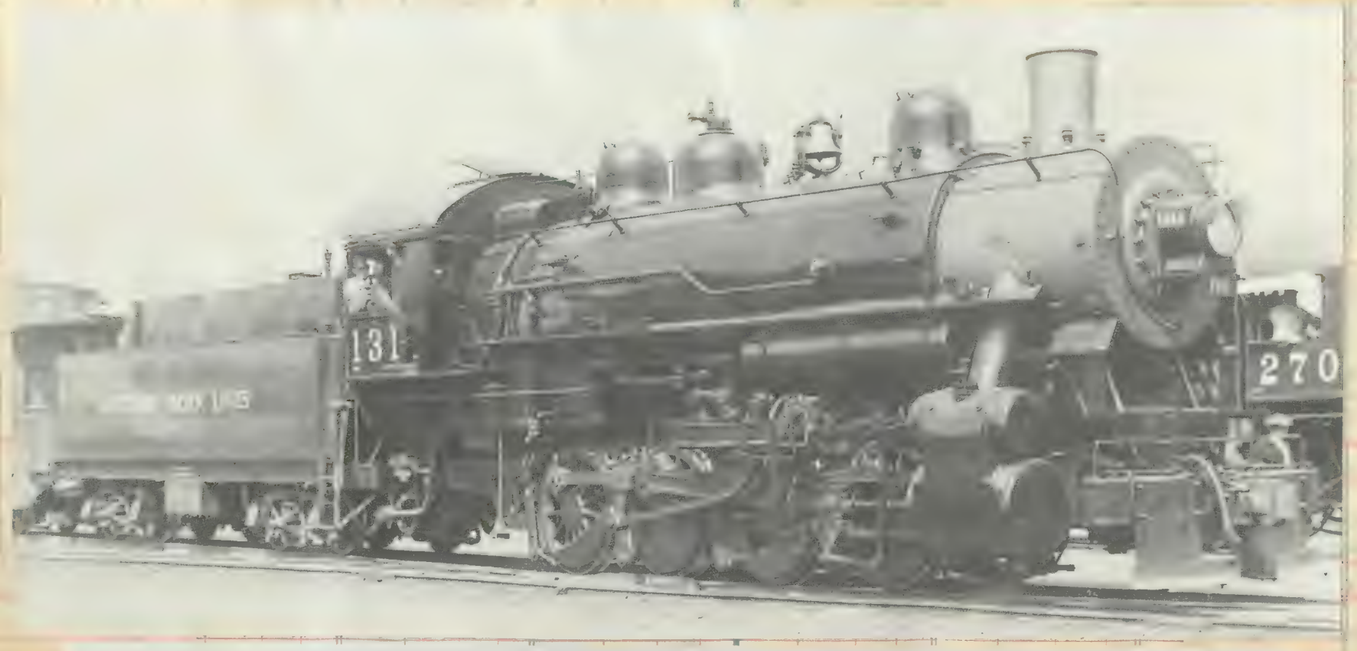
Old-time orphan on the Southern Pacific.

One of the interesting things a railroad photographer inevitably comes across is an old negative. This print was made by Willard Wood, from an old negative taken by R. W. Cooper in Sodaville, Nev., in 1904. That was about the time the great mines at Tonopah and Goldfield were becoming so important only to fade out soon after. Locomotive 1010 of the Southern Pacific was originally No. 80 and was built in 1884 by the Baldwin Locomotive Works. Sodaville is just south of Mina and up until recently two gauges of the Southern Pacific ran through that point. The track in the foreground in this picture is probably three-foot gauge, but locomotive 1010 is a standard-gauge saddle tank, a type now rarely seen. Some time after this picture was taken the engine was renumbered 568 and converted to a shop switcher. In 1929 it was scrapped. The engine had 48″ drivers, 15″ x 22″ cylinders, and there were no other engines just like it on the Southern Pacific.

The 1059 blt by Rhode Island (c/n 59) 1868, as C.P. #91. To S.P. 1552, 1059.

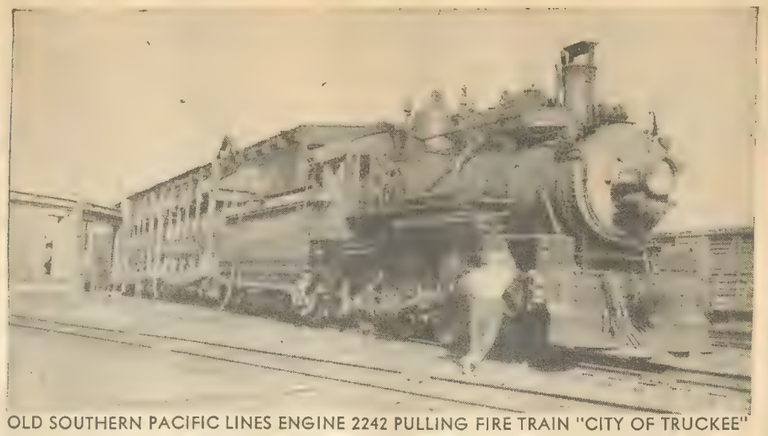
OLD LOCOMOTIVE ON SOUTHERN PACIFIC RAILROAD

Locomotive 1059 was in yard work at Lordsburg, N.M., in 1897. The crew, as shown in the picture, left to right, consisted of an unknown switchman on the foot board, Yardman Stinson, Yardmaster Bruce Weathers, and the engineer, Brother George W. Trimble, Div. 28, now retired, who owns the photograph. Brother J. P. Morris, C. E., Div. 28, who was initiated into firing on this locomotive in October, 1900, submitted the photograph.



The Espee had always found the 6 wheel engine adequate for its yard service but in 1930, using boilers from retired A-3 4-4-2's, Sacramento Shops built seven robust 0-8-0's noed 1307-1313. Digging in with a tractive effort of 52,990 lbs, some 21,000# over the 0-6-0 S-14 class, they were the most powerful yard engines on the roster. One more, the 1314, the last engine to be built at Sacramento, was constructed in 1937.

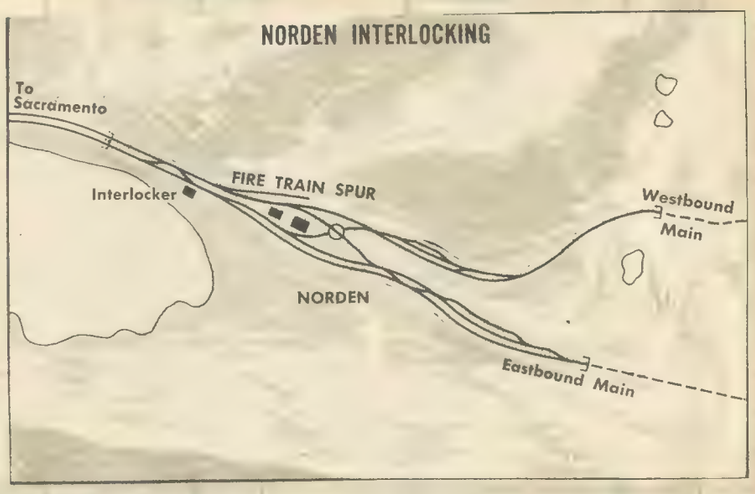
Ancient 2181, a 10 wheeler (class T-8) was built by Schenectady in 1888 for
e Northern Ry. Here she works as a "fire engine" on the Hill
ovided with the Equipment necessary to protect the numerous
ow sheds.



OLD SOUTHERN PACIFIC LINES ENGINE 2242 PULLING FIRE TRAIN "CITY OF TRUCKEE"
Standing against the pilot beam is Brother B. J. (Bat) Riordan, Div. 415, roundhouse foreman.

T-1 Cooke 1896

Org #1838



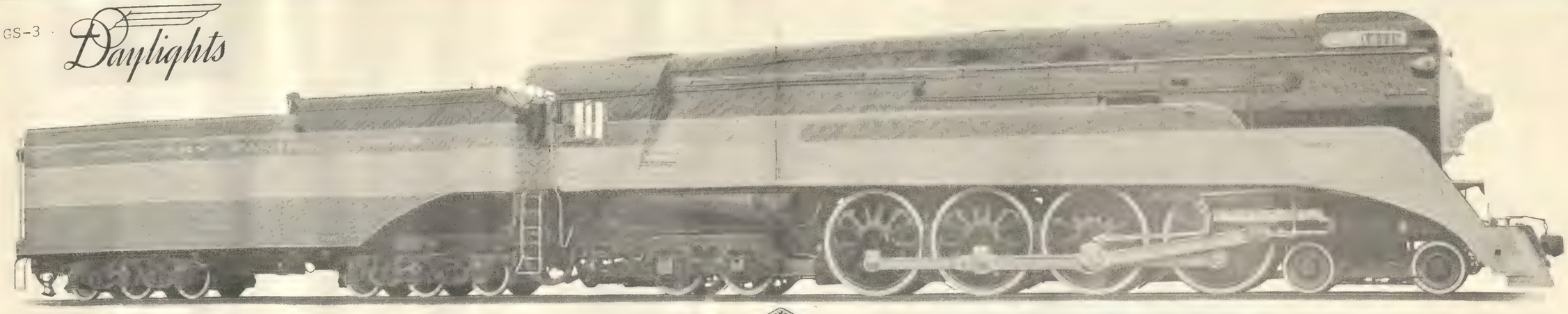
The 2248 (Cooke 1896) is still operational as Texas State #200.

Howard Bull

The two-cylinder pump which supplies pressure for the firefighters' hoses is ancient and begrimed, but powerful and trustworthy. It sits astride the locomotive's boiler just behind the old-style sand dome.

GS-3 *Daylights*

31



mount

The "GS" Daylight engines, blt by LIMA

Class	Road Numbers	Order No.	Construction Numbers	Delivery Date
GS-2	4410-4415	1135	7646-7651	12/1936
GS-3	4416-4429	1141	7721-7734	10-12/37
GS-4	4430-4449	1152	7798-7817	3-5/1941
GS-4	4450-4457	1158	7848-7855	3-4/1942
GS-5	4458-4459	1158	7856-7857	6/1942
GS-6	4460-4463	1167	8013-8016	7-8/1943
GS-6	4464-4469	1172	8248-8253	8/1943

LIMA LOCOMOTIVE WORKS INCORPORATED

T. L. E. Haug.

Class GS-2: Engine 4413 was photographed in San Francisco shortly after deliv

1936 Six GS-2

4410-4415 Lima

1937 Fourteen GS-3

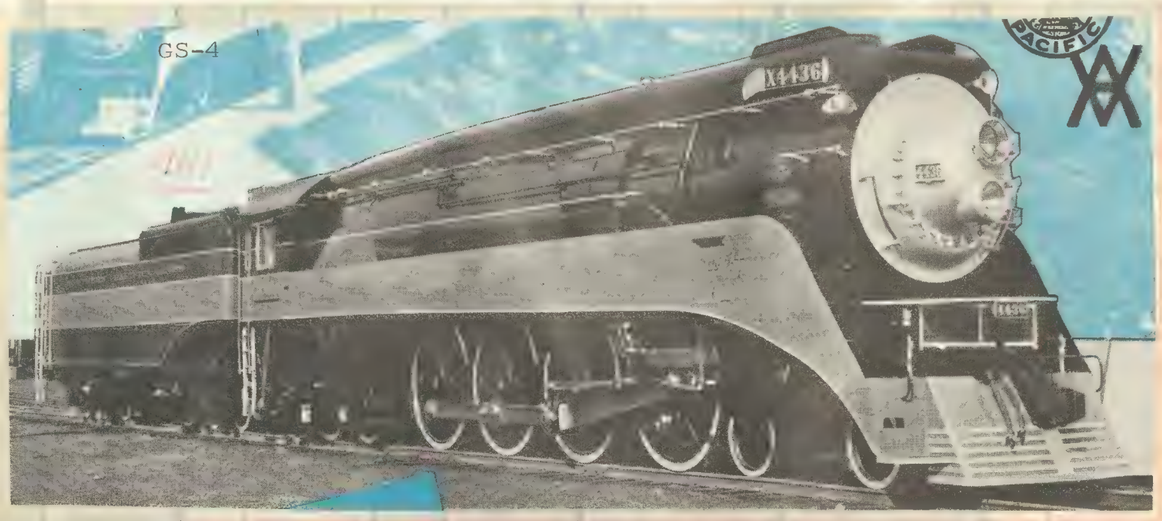
4416-4429

T. L. E. Haug.

Class GS-3: Engine 4424 prepares to leave San Francisco with the Daylig

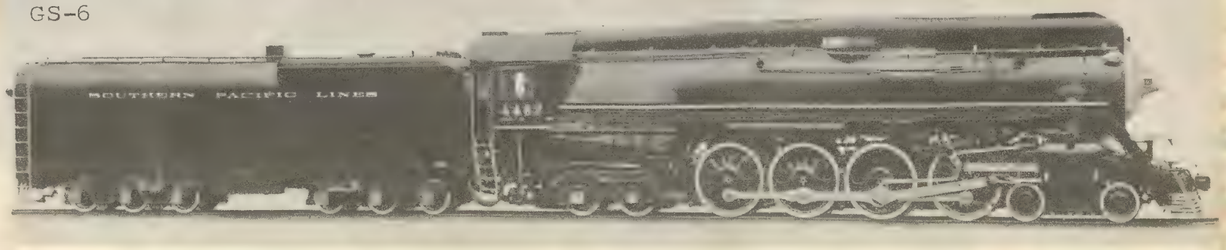
GS-5

GS-4



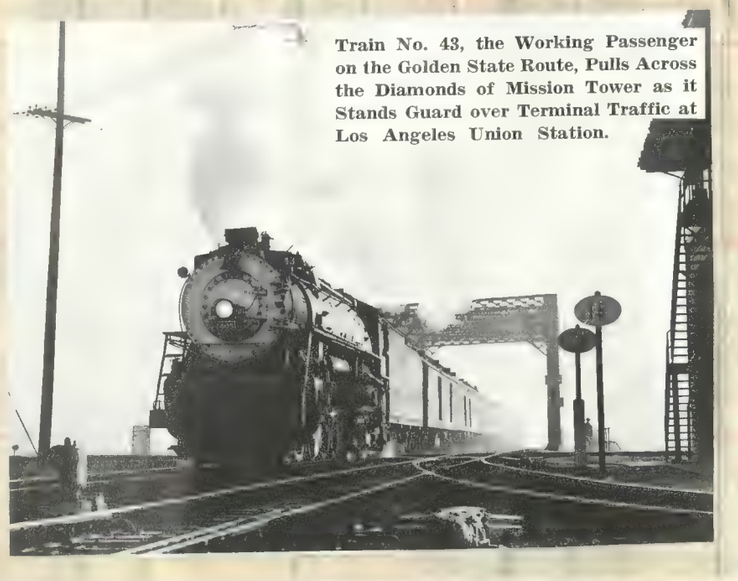
GS-4

GS-6



At the right, Harley Kelso has caught the original GS-4 "Daylight" waiting for the board at the east end of the Taylor yards. The Dayton Avenue Tower just beyond the signal bridge controls the busy interlocking for the roundhouse leads, yard tracks and both the Los Angeles Division (coast line) and San Joaquin Division mains.

Train #17 near Dunsmuir



Train No. 43, the Working Passenger on the Golden State Route, Pulls Across the Diamonds of Mission Tower as it Stands Guard over Terminal Traffic at Los Angeles Union Station.

In the Grand Manner of Steam Railroading the Operator Hands the Train Order Hoop to Waiting Engineman at Burbank Junction Where the Coast Line and San Joaquin Valley Line Part

In 1905 Los Angeles Harbor was deepened in anticipation of the traffic that would come to it through the new Panama Canal, and the Southern Pacific hauled rock for the breakwater in past its San Pedro station. The station is directly above the tender of the little 2-6-0; in the background the dredge is deepening the harbor from its former 17 feet to 20 feet.

SOUTHERN PACIFIC'S backdoor link between its Overland and Shasta Routes — the freight-only, 277-mile line between Klamath Falls, Ore., and Fernley, Nev. — is one of the last high-altitude strongholds of that revered mountain battler: the AC-class cab-in-front articulated. Last December 28, on a cold and overcast morning, Photographer Othmar T. Tobisch and his father were on hand to witness road engine 4222 and helpers 4216 and 4211 fight up the 1.86 per cent grade to Sage Hen, Calif., at 7 miles per hour with First 553. The accompanying verse was penned by Tobisch's father in salute to something fine in steam.

Farewell, my friends

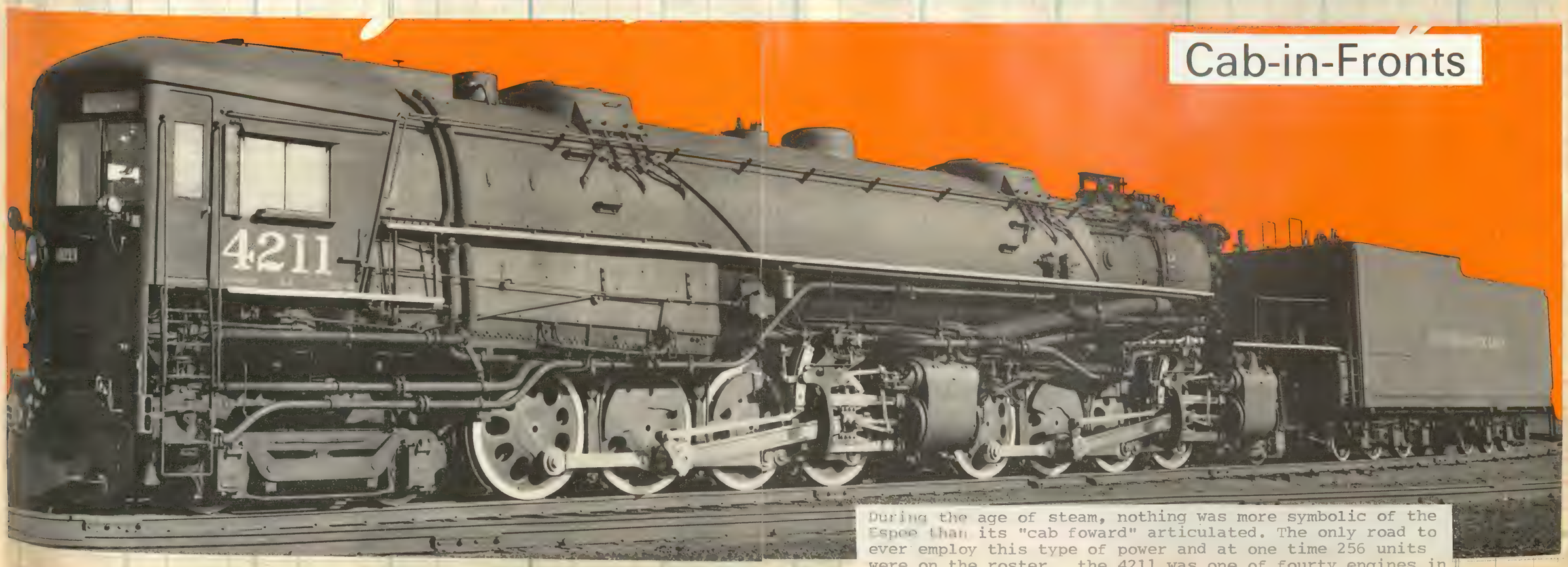
Farewell, my friends of the thundering clan,
  On the mountain heights, farewell.
The honking geese in the wintry sky,
  In their cries my sadness tell.

Once more I saw you hulky and strong,
  Enveloped in hissing steam:
Explosive eruptions of masterminds,
  Creations of mankind's dream.

Like the pines on the ridge beyond the track
  The pillars of clouds arose.
Immortal now, immersed in the skies,
  The final picture they pose.

— Othmar Tobisch.

Cab-in-Fronts



During the age of steam, nothing was more symbolic of the Espee than its "cab foward" articulated. The only road to ever employ this type of power and at one time 256 units were on the roster. the 4211 was one of fourty engines in the AC-10 class (4205-4244) built by Baldwin 1942. Total weight 657,900# with cyls 24x32x32, BP 250#, drivers 63" and T. E. 124,300 #.

34

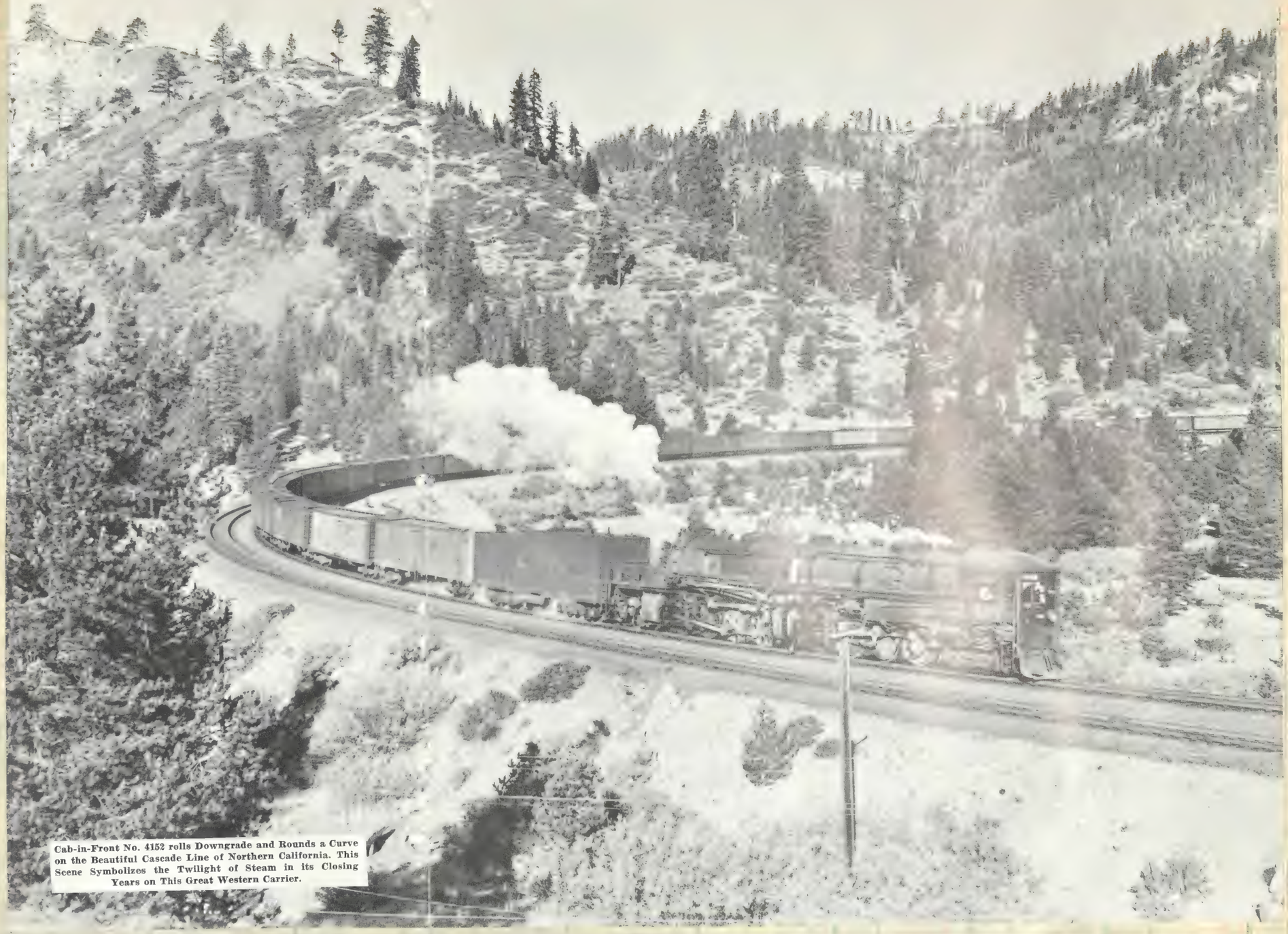
SOUTHERN PACIFIC ARTICULATEDS MEET IN THE CALIFORNIA DESERT.

#3930, one of two 2-6-6-2's purchased from the Verde Tunnel & Smelter in 1943 for use in transfer work in Los Angeles area. Was VT&S #500 built by Schenectady 1920 cn 61538

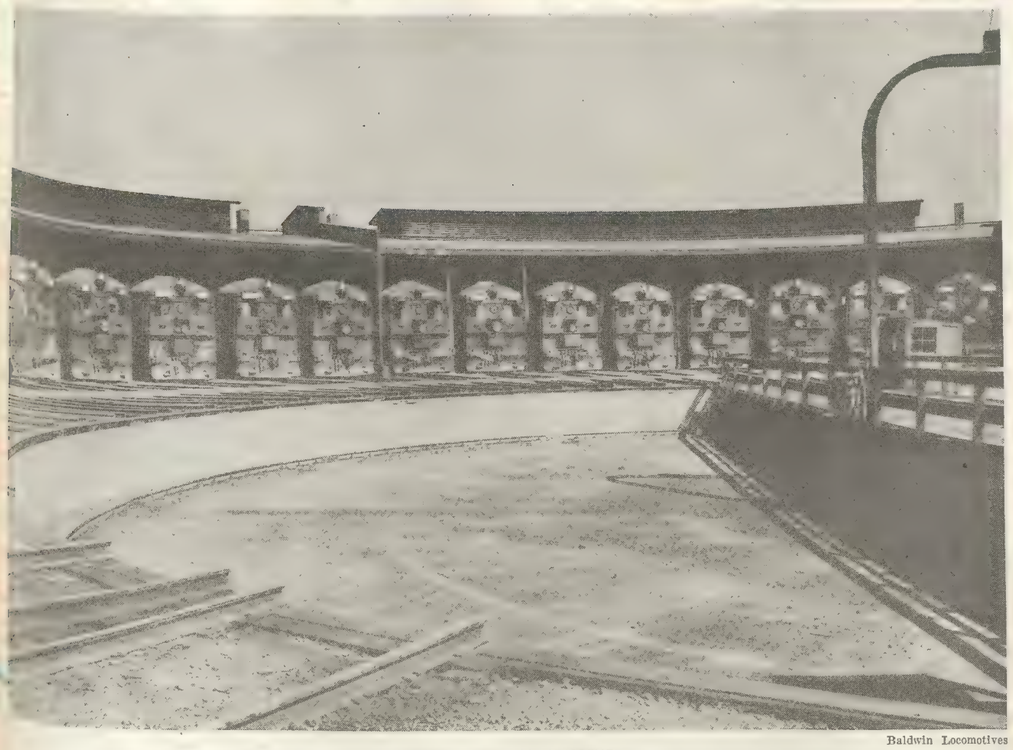
TITANS *of the Mountains*

Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

Sold	Amount



Cab-in-Front No. 4152 rolls Downgrade and Rounds a Curve on the Beautiful Cascade Line of Northern California. This Scene Symbolizes the Twilight of Steam in its Closing Years on This Great Western Carrier.



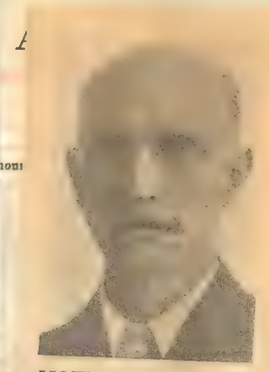
Baldwin Locomotives

AN UNUSUAL ROUNDHOUSE SCENE

This unusual view shows 13 single-expansion articulated locomotives built by the Baldwin Locomotive Works for the Southern Pacific Lines. They are part of a group of 51 such locomotives built by Baldwin for the Southern Pacific from 1928 to 1930.

An Espee 4-8-8-2 labors up the Sierra with a gravel train. Jim Morley photo.

36



HOWARD STILLMAN
father of the cab-in-fronter

4000-4001
Baldwin 1909
Class MC-1
2-8-8-2
c/n 33340

The initial mallet for the Espee, as delivered by the builder, had an attractive appearence.

THE BALDWIN LOCOMOTIVE WORKS

4200-4211
Built 1911
Class MM-2

Southern Pacific Company

Twelve locomotives like that illustrated above, are passenger service on the Central Pacific Railroad. nany respects these locomotives are similar to the ght engines illustrated on page 34, and they are ating on the same division. The Mallets have aced ten-wheeled locomotives, two of which were erly necessary to handle a passenger train on the e of 116 feet per mile. Working compound, the et locomotives exert a tractive force of 66,700 pounds. boiler is of the separable type, with feed-water er; but the reheater as used on the freight locomotives is [illegible]. The receiver pipe connecting the high and low-pressure cylinders, passes through a flue which traverses the water heater; and is exposed, as little as possible, to the cooling effects of the atmosphere. The general arrangement of the piping is like that shown on page 8. Like the freight locomotives, these engines run cab end first. They are interesting examples of powerful Mallet locomotives, specially designed to avoid double heading and to meet difficult operating conditions.

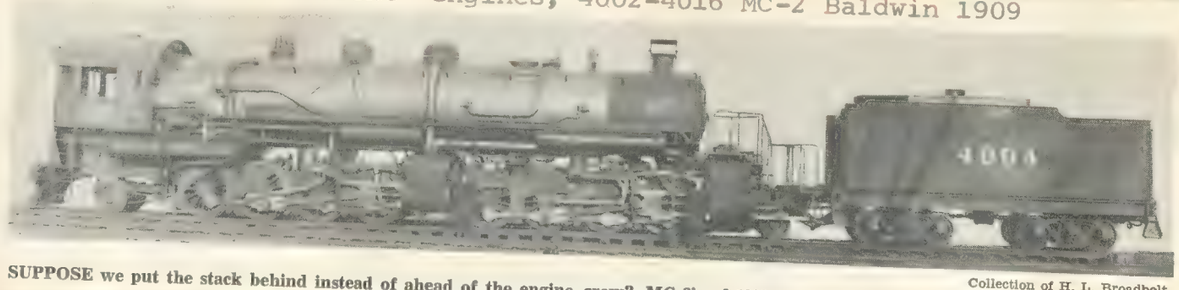
The two wheel leading truck did not track well in passenger service and soon equip with 4 wheel truck as on the 4210, below.

WHEEL engine truck — adopted by latter-day cab-forward power — was first employed by MM-2's to improve stability.

Collection of Guy L. Dunscomb.

And as they appeared after being reassigned to work east out of Colton on the Los Angeles Div. Above, the 4000 at Beaumont fitted with a "whaleback" (98-SC type) tank.

The first "cab-in-front" engines, 4002-4016 MC-2 Baldwin 1909

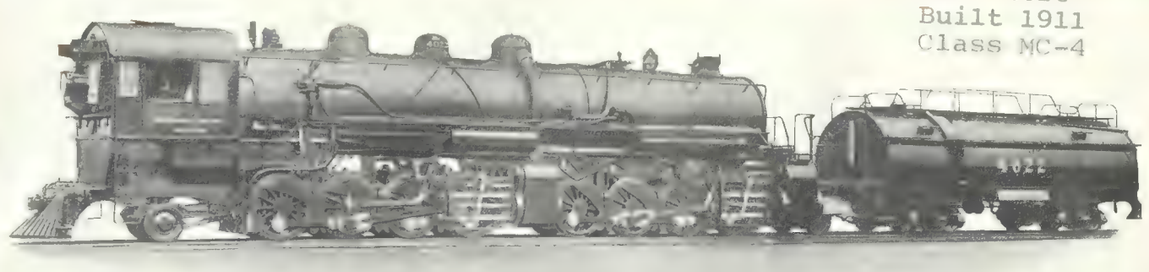


SUPPOSE we put the stack behind instead of ahead of the engine crew? MC-2's of 1909 were an affirmative answer to that question.

Collection of H. L. Broadbelt.

THE BALDWIN LOCOMOTIVE WORKS

4017-4028
Built 1911
Class MC-4

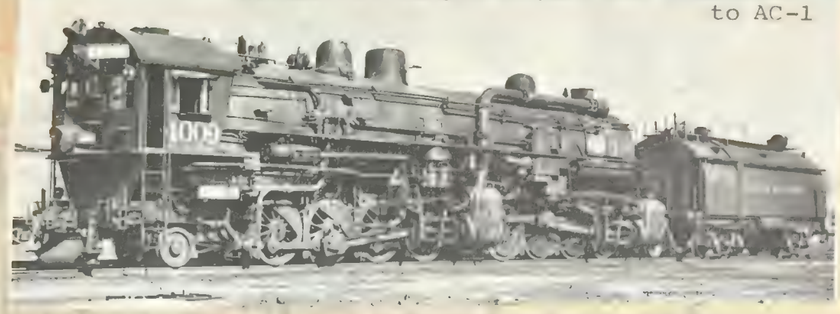


1911

Southern Pacific Company

The locomotive shown above is in freight service on the Sacramento Division of the Central Pacific Railroad. On this division there is a total rise of 7,000 feet in a distance of 105 miles, with a maximum grade of 116 feet per mile for about forty miles. The locomotive illustrated exerts a tractive force of 85,500 pounds. It is one of twenty-nine engines of similar design and capacity, the first two of which were placed in service on this division in 1909. These locomotives are equipped for oil-burning, and with the exception of the two first built are designed to run firebox end first, thus giving the enginemen an unobstructed view of the track. The boiler is of the separable type, with a feed-water heater and smokebox reheater in the front section. The steam piping is arranged as shown on page 7. The injector piping is so arranged that the feed enters the heater at the bottom and leaves it at the top, thus giving circulation through the entire depth of the heater. The tender tanks are semi-cylindrical in shape.

Rebuilt as simple engine and reclassed to AC-1



4029-4048
Baldwin 1913
Class MC-6

A Mallet Locomotive of the 2-8-8-2 Type, Built by The Baldwin Locomotive Works in 1912

Cylinders, H.P.	26″ x 30″	Steam pressure	200 lb.	Heating surface	5,626 sq. ft.	Weight on drivers	400,900 lb.
Cylinders, L.P.	40″ x 30″	Drivers, diam.	57″	Grate area	68.4 sq. ft.	Weight, total engine	436,200 lb.

Old MC-4 as rebuilt simple and reclassed to AC-2

A DOZEN members of Class MM-2 began life in 1911 as 63-inch-drivered compound 2-6-6-2 passenger engines. Four-wheel engine trucks were soon applied to improve riding qualities at speed. Ultimately downgraded to freight service, the locomotives were simpled and reclassified AM-2 between 1929 and 1936. Nos. 3908 (above)

MC-6 4042 at work in Colfax 1919

4029-4048 Class MC-6
Baldwin 1913

First among the famous cab-ahead locomotives of the Southern Pacific were the 4000 and old 4200 (later 3900) series of engines, all of which have been scrapped. Shown here is the last unit of this group of engines on its last revenue trip, photographed at Eugene, Oregon in the fall of 1949 by Bert Ward, Southern Pacific brakeman. There were twelve engines in the 4-6-6-2, or 3900 series, and forty-nine engines in the 2-8-8-2, or 4000 series. The present cab-ahead machines are in the 4100 and 4200 series, the earliest of which were built in 1928.

Shown here as rebuilt and reclassed AC-3. Fifteen years were to go by before the next "cab-ahead" engines were ordered.

38 The 4100, first of 195 4-8-8-2's, leads the "Owl" through Newhall, California

No 26—Owl. Daily.
Sleeper
Standard Sleeping Cars.....San Francisco to Los Angeles.
San Francisco to Bakersfield.
Coach Dining Car.
1933

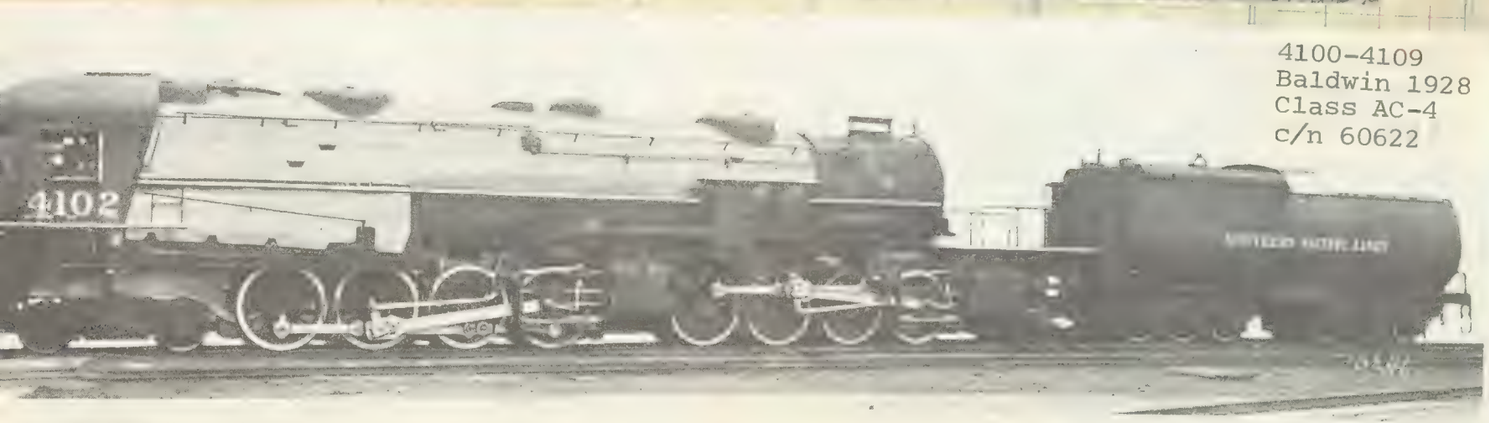
Ex 4102 west with 101 mty reefers east of Truckee

Baldwin Single-expansion 4-8-8-2 Type Locomotive on the Southern Pacific Lines, Hauling Eighty-four Cars Up the East Slope of the Sierra Nevada Mountains in California.

SIMPLE EXPANSION ARTICULATED LOCOMOTIVE

Baldwin Locomotive Works

Locomotive 4100 of the Southern Pacific is pulling a train on an ascending grade of 60 feet per mile between Sparks, Nev., and Truckee, Cal. The locomotive burns oil and is run with the cab end leading.



4100-4109
Baldwin 1928
Class AC-4
c/n 60622

outhern Pacific Railway 4-8-8-2 Single-Expansion Articulated Locomotive, Class AC-4, for Passenger and Freight Service. Built by The Baldwin Locomotive Works.

(See also Fig. 153 and Page 199)

eter and stroke	4-24 in. x 32 in.	Weight on trailing truck	52,400 lb.	Firebox, length and width	196⅛ in. x 102¼ in.
	70 per cent	Total weight of engine	614,600 lb.	Grate area	139 sq. ft.
force	112,760 lb.	Weight of tender	292,400 lb.	Steam pressure	235 lb.
ter	63½ in.	Driving wheel base	16 ft. 11 in. and 16 ft. 11 in.	Evaporative heating surface	6,487 sq. ft.
ers	475,200 lb.	Total engine wheel base	66 ft. 10 in	Superheating surface	2,988 sq. ft.
t truck	87,000 lb.	Fuel	Oil	Tender capacity	16,157 gal. water—4,912 gal. oil

AC-5 #4114 gets a roll on the second section of #26, the "OWL", at Glendale, California

foto fm Herb Sullivan

On the San Joaquin Div[illegible]

4117, an AC-5, wheeling the tonnage near Marne, Calif.

4110-4125
Baldwin 1929
Class AC-5

4126-4150
Baldwin 1930
AC-6

c/n 61387

Sys

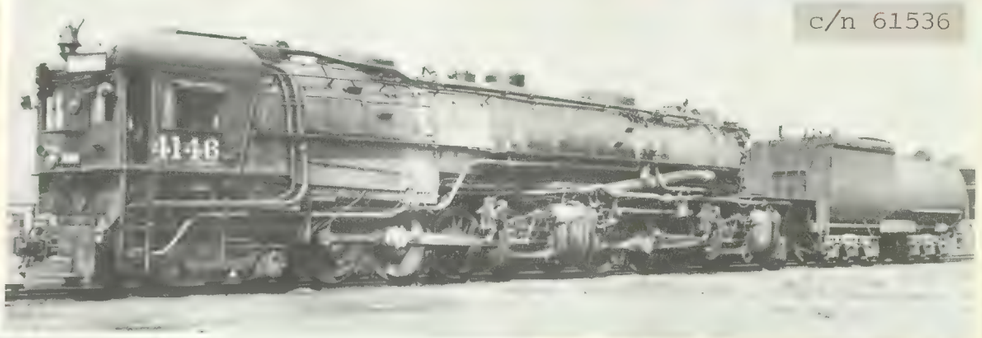
ount

The Train Climbing the Western Slope of the Sierra Nevada Mountains

Clos. No. | Sold | Amount

Extra 4144 east, the "Redwood Empire Special", 105 cars lumber, 4,587 tons, enroute July 1, 1931. Power needed was three 4-8-8-2's.

c/n 61536



One of the Single Expansion 4-8-8-2 Type Locomotives, Built by The Baldwin Locomotive Works in 1930

Cylinders (4)	24″ x 32″	Heating surface	6,505 sq. ft.	Weight on drivers	517,000 lb.
Steam pressure	250 lb.	Superheating surface	2,988 sq. ft.	Weight, total engine	639,500 lb.
Drivers, diam.	63½″	Grate area	139 sq. ft.	Tractive force	124,300 lb.

4151-4176
Baldwin 1937
Class AC-7
c/n 61953

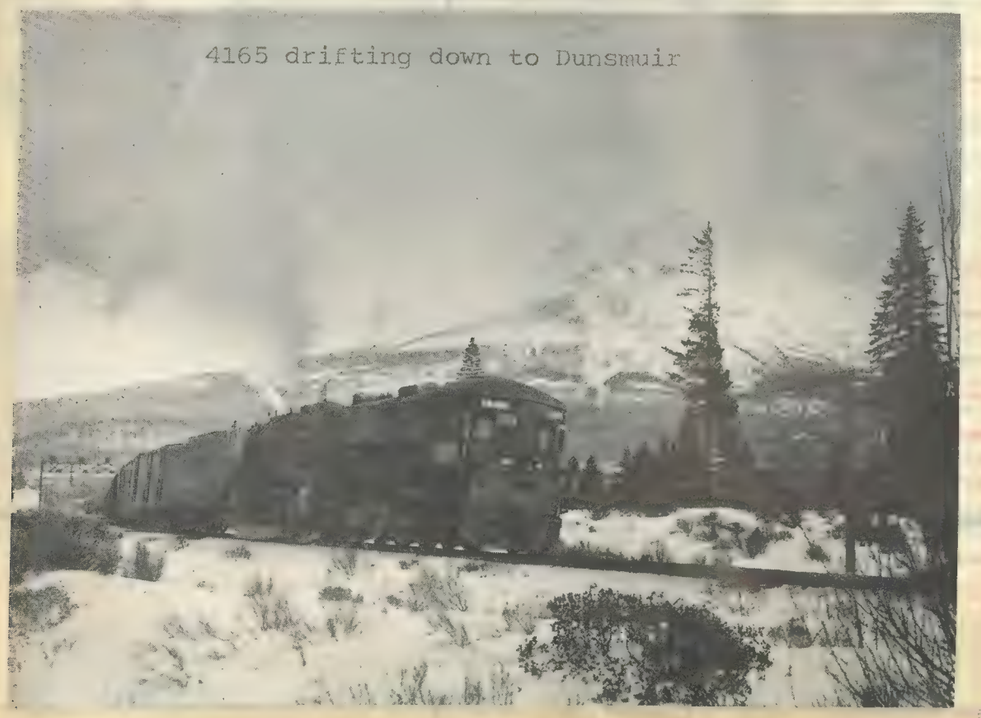
c/n 61960

Collection of H. L. Broadbelt.

STREAMLINED CABS and big tanks characterized the ultimate cab-forward articulated. Baldwin outshopped **AC-7 No. 4159 in 1937.**

An AC-7 with an extra east of Auburn

4165 drifting down to Dunsmuir



D. L. Joslyn, 2164 Castro Way, Sacramento, Calif.

A study in contrasts: 4-2-4 vs. 4-8-8-2.

The one-spot is better known as the *C. P. Huntington*. It was built by Danforth Cooke & Company in 1863. Its two drivers measure 54″; cylinders are 11″ x 15″. This heavyweight of the rails (43,500 pounds) exerts a tractive force of 3571 pounds. No. 4162, of Class AC-7, tips the scales at 1,028,700 pounds, with tender, and measures 125 feet as compared with No. 1's 29′-6″. Its four cylinders are 24″ x 32″; drivers, 63″; tractive effort, 124,300 pounds. Baldwin-built, 1937.

P R-46 4-69 200 bks. (Eureka 27014) Printed in U. S. A.

CUT HERE To Make Short Sheet

Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

c/n 62273

An AC-8 wheels the tonnage near Walnut, Calif.

Twenty eight engines of the AC-8 class, 4177-4204, delivered by Baldwin 1939

c/n 62265

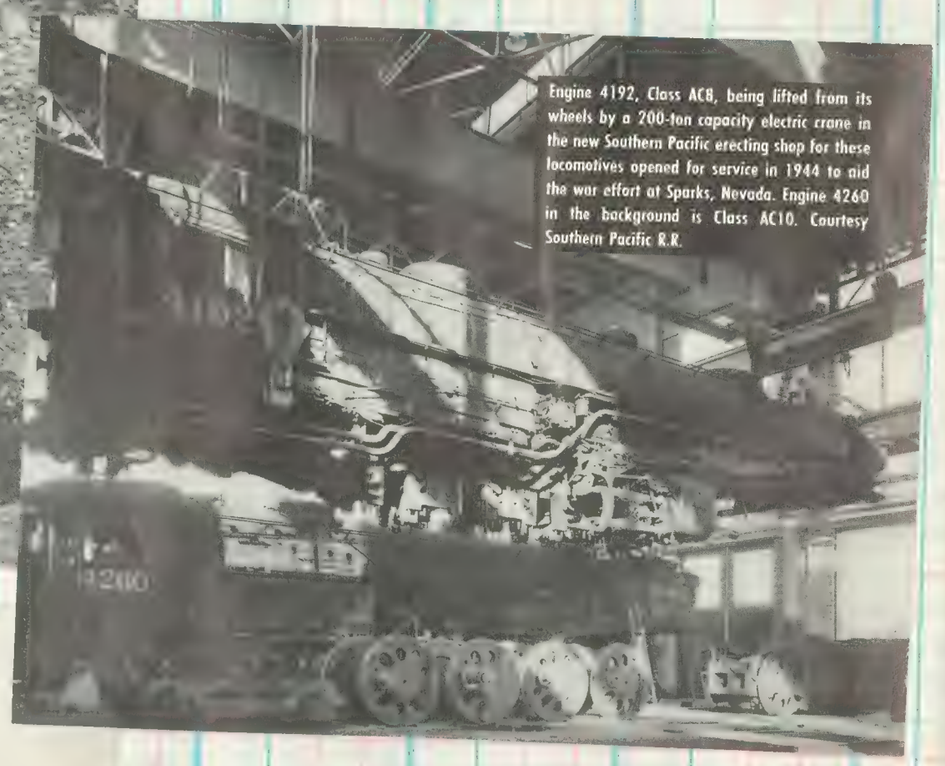
c/n 62279

And here's the 4177 again, this time making money for the company handling Trn #671 near McCredi Springs, Oregon

42

An eastbound fruit block winds into Winterhaven, Calif., ½ miles west of Yuma, Arizona. Directly above the curve in the highway can be seen a small patch of the Colorado River and beyond that part of the city of Yuma. Track bearing off to the right is the line up to Laguna Dam, about 12 miles up the Colorado River.

The cockpit of an AC



Engine 4192, Class AC8, being lifted from its wheels by a 200-ton capacity electric crane in the new Southern Pacific erecting shop for these locomotives opened for service in 1944 to aid the war effort at Sparks, Nevada. Engine 4260 in the background is Class AC10. Courtesy Southern Pacific R.R.

No. 15-60-26—WEST COAST. Daily
All Sleepers Air-Conditioned.
Observation Sleeping Car: Portland to Los Angeles.
Standard Sleeping Cars: Portland to Los Angeles; Sacramento to Los Angeles.
Tourist Sleeping Car: Portland to Los Angeles. **Dining Car:** For meal service (Air-Conditioned).
Coaches. Reclining Chair Cars.

The "West Coast" at Glendale

c/n 62284

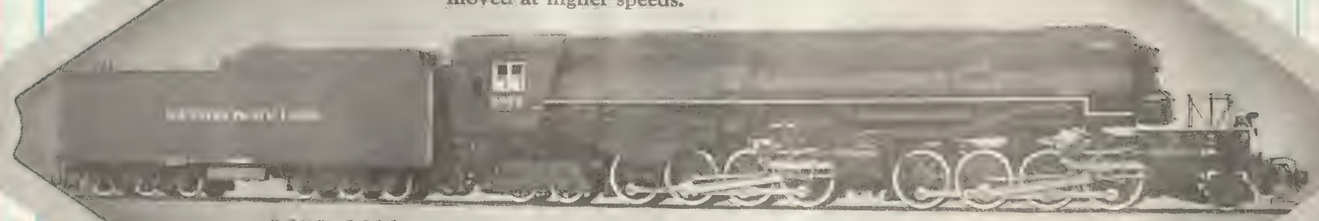
Sold | Sold | Amount | Clos. No. | Sold | Amo

Amount

The dozen "Gila Monsters" built for service on the Rio Grande Div and worked there until 1953 when they were transfered to the Salt Lake Div. In 1954 one wheels tonnage near Wendel, Nev.

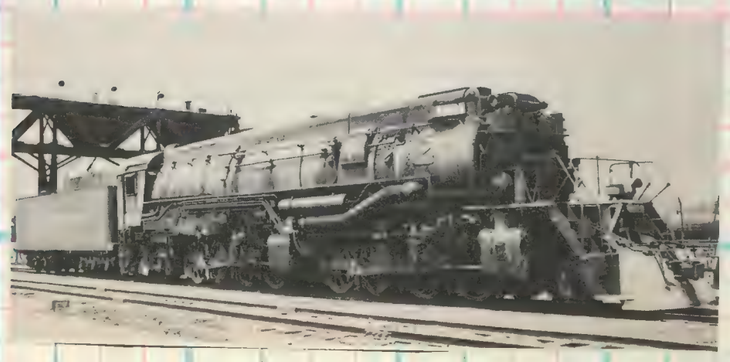
3810 departing Alamogordo, NM

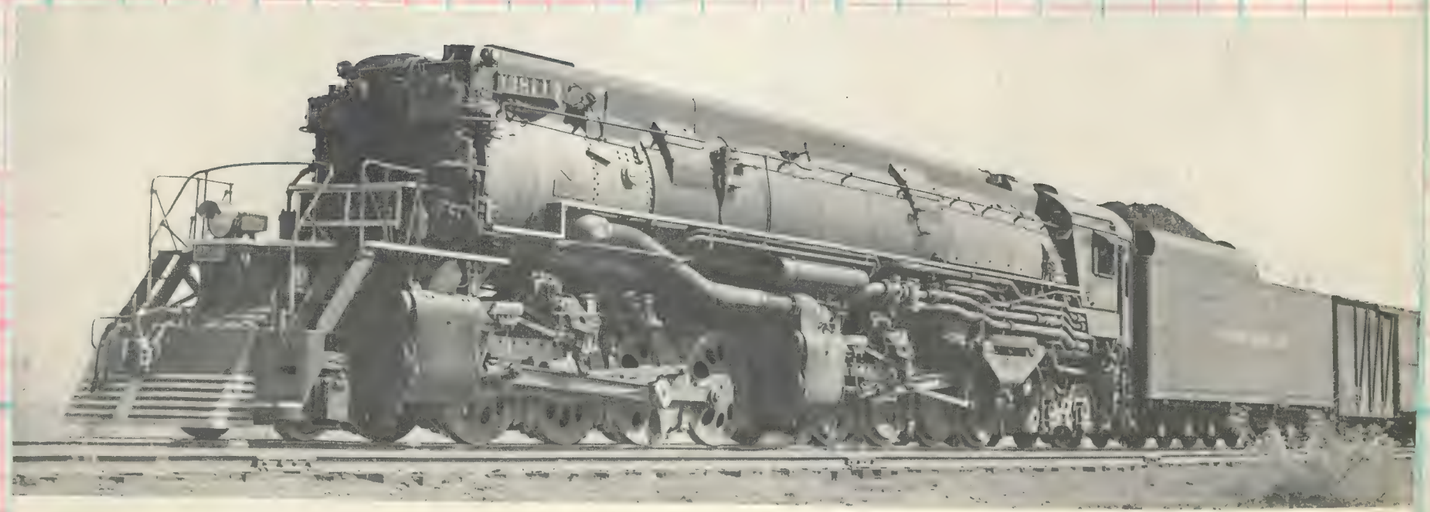
TWELVE new 2-8-8-4 high-speed Mallets have recently been delivered by Lima to the Southern Pacific. These locomotives are outstanding examples of the type that is being ordered by the progressive railroads to meet the present-day demands of heavier loads moved at higher speeds.



3800-3811 AC-9

LIMA LOCOMOTIVE WORKS
INCORPORATED, LIMA, OHIO
1939





c/n 7776

Less known than the unique cab-forward articulateds used over the Sierras and Cascades, these Lima-built coal burning 2-8-8-4's pull fast freight on the Sunset Route through Arizona and New Mexico. By R. H. Kindig.

PHOTO SECTION

The signal is clear and so is the order board, and the crews of the two freights in the sidings are passing the moments with a bit of conversation. This is what the engineer sees from his window in the cab of a Southern Pacific cab-forward as he approaches Saugus, Calif.

Talking to the Gods! AC-10 (4229) working wide open lifting Trn 766 up an incline near Casmalia on the Coast Line.

Six cars and the hack is not much of a train for AC-10 #4216 drifting along south of Mohave.

Northbound Southern Pacific Train No. 51, San Joaquin Daylight near Mojave, California

4247, AC-11, works 1st 553 thru the northern Nevada high country over the old N-C-O near Madeline on Feby 2, 1956

4245-4274
Built 1942
Class AC-11
c/n 64704

Trn #52, the "San Joaquin", with AC-11 4252 doing the honors

No. 52—SAN JOAQUIN. Daily.
All Cars air-conditioned.
Reserved Seat Car, Diner and Coaches: San Francisco to Los Angeles.

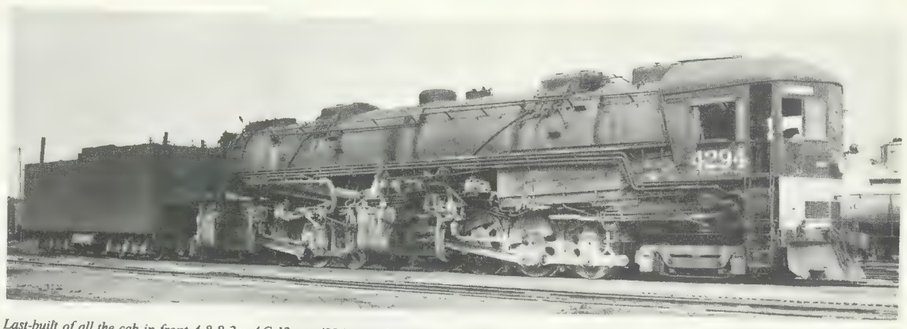
Charging up the Modoc Line Extra 4250 heads north with tonnage near Fernley, Nevada

c/n 64682

c/n 64704

from 66 ft. 10 in. to 67 ft. 3 in. though coupled wheel-

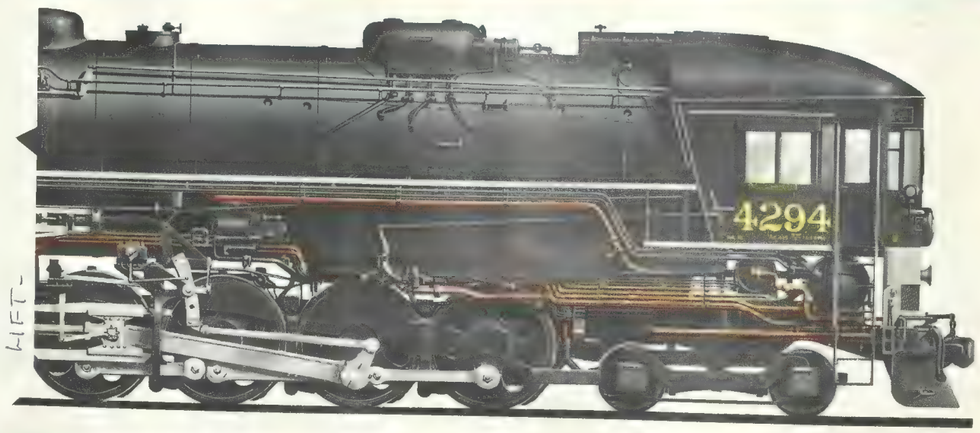
Cyls.(4), bore & stroke	in.	24 x 32	24 x 32



Last-built of all the cab-in-front 4-8-8-2s: AC-12 no. 4294, completed 1944, and withdrawn for preservation in March 1956. Photo taken at Los Angeles shortly after the war. Leading drivers whitened by alkali dust stirred up by blowdown operations; divided and shrouded blowdown outlet just in front of no. 1 drivers.
(Photo: Gerald M. Best)

variations in superheating surface resulted from varying lengths of elements, but after trials of 2988 sq. ft. in early

(1)With heaviest version of engine
(2)See notes in text.



HET-

WHAT was probably the last run of a cab-in-fronter from Sacramento over the Sierras to Reno, Nev., was taken last November 30-December 1 by No. 4274. The excursion on Southern Pacific was sponsored by California-Nevada Railroad Historical Society.

1957

(c/n 70101) The last engine built for the Espee

4274
AC-10

11/30/57

Both photos, D. S. Richter.
. . . a last look at a Southern Pacific cab-in-fronter in steam.

George Andrews

46

Rescued from a static display in Portland's Oaks Park, the 4449 gained national attention in 1976 as the power for the Freedom Train. Owned by the city of Portland with the Pacific Northwest Chapter of the National Railway Historical Society serving as custodian, she remains active and still sees service on special occassions

Sold

The 4449 pounds across the diamond at Niles Tower May 8, 1984

IN her birthday suit, Southern Pacific GS-4 4-8-4 4449 rides the table at Brooklyn Yard roundhouse in Portland, Ore., on April 22, 1981, three days before departure for Sacramento on an excursion to help open the California Railroad Museum. Beloved as her American Freedom Train attire was nationally, purists had yearned for *Daylight* dress.

Jack Yager

On the Seaboard Coast Line at Sanford, Fla. January 14, 1977

THE PIONEER ROUTE
THE SHORTEST ROUTE

THE SCENIC Overland Route

CHICAGO–SAN FRANCISCO

Train 14—PACIFIC LIMITED.
Via S. P.-U. P.-C. & N. W.

Standard Sleeper—
★San Francisco to Chicago (Sections Drawing-room).
Observation Lounge Sleeper—
★San Francisco to Salt Lake City (10-Sections).
Observation Lounge Service—
★Ogden to Chicago.
Tourist Sleeper—★San Francisco to Chicago.
Dining Car—★Breakfast, 40c. to $1.00; luncheon, 60c. to $1.00; dinner, 70c. to $1.25; also a la carte service (no breakfast service from Oakland Pier).
Reclining Chair Cars or Coaches (Free Pillows, day or night)—
★San Francisco to Chicago.
Coach (Free Pillows, day or night)—
★San Francisco to Kansas City.
Tickets Honored—All classes.

LUCIN CUTOFF

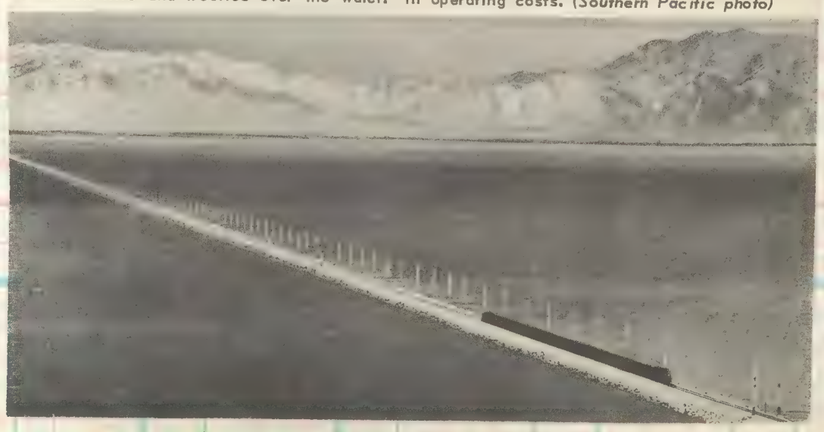
Built Aug 1902-Oct 1903 at a cost of $8.5 million. Opened for service March 1904.

Eng 3258, one of the MK-6 2-8-2's built by Lima 1914, brings # 14 the "Pacific Limited" across Lucin Cut-off.

THE NATION WAS SPANNED BY RAIL IN 1869, WHEN A GOLDEN SPIKE WAS DRIVEN AT PROMONTORY POINT NEAR GREAT SALT LAKE, UTAH

THE TIMBER TRESTLE FORMING THE "CUT-OFF" ACROSS GREAT SALT LAKE.

Most spectacular of the work involved in Edward H. Harriman's rebuilding of the Union and Southern Pacifics when he acquired them at the turn of the century was the 103-mile Lucin Cut-off *(below)*. Completed in 1904 to replace the original Central Pacific line around the north end of Great Salt Lake, it went straight across the lake, 27½ miles of it on fills and trestles over the water. It shortened the line by 44 miles, eliminated 11 full circles of curvature, lowered grades, and immediately saved $60,000 a month in operating costs. *(Southern Pacific photo)*

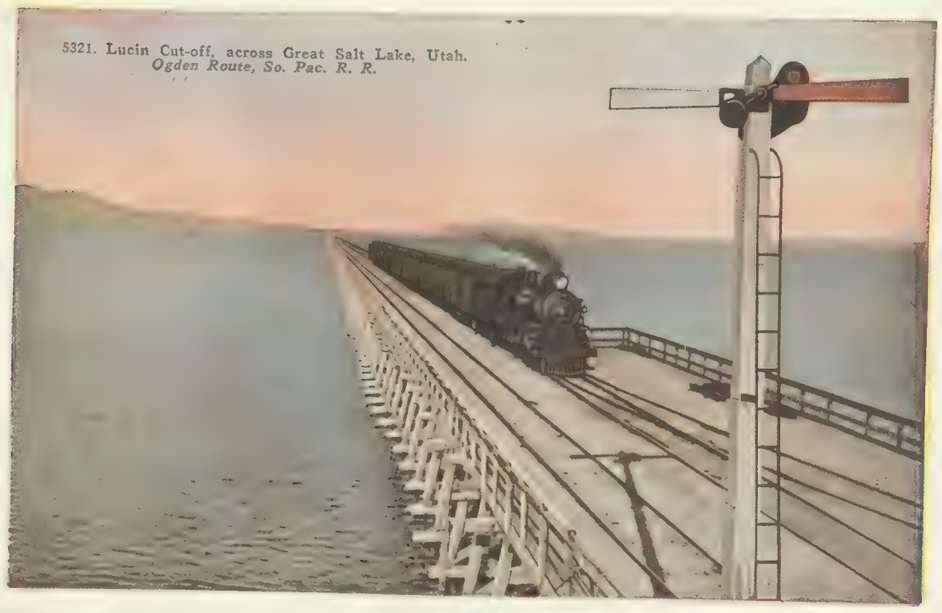


48

SCENIC UTAH

Clos. 1

Amount | Clos.No. | Sold



Eastbound Southern Pacific trains enter CTC track at Vista, Nev.

K. E. Kellenberger of Union Switch & Signal Co.

The "Overland Limited" as it skirts placid Humboldt River, in Palisade Canyon of Nevada. OKM

B. YOU'LL PARALLEL the Humboldt River where it cuts swift and sure through Nevada's Palisade Canyon, flowing between precipitous walls of lava rock rising hundreds of feet.

Courtesy Southern Pacific

Challenger in Palisade Canyon

The colorful Palisade Canyon of the Humboldt River in Central Nevada is a daylight scene for travelers on both eastbound and westbound trains of the Southern Pacific's San Francisco Challenger. Western Pacific's single track line is on one side of the river, SP on the other, but both are now used jointly as a double track railroad with all trains going west on the SP track and east on the WP track.

The "Overland Limited" was accepted into the S.P.'s timecards in 1899 as a thru train via C&NW, U.P.,S.P. "A palatial train for particular people"

2405-2419
Baldwin1906
c/n 27366

A train of tradition

A high-born Baldwin Pacific manages better than a mile a minute with the Overland Limited east of Elko, Nev., in 1918. At that time the train charged an extra fare, and carried no coaches.

First #560 with engine 3744 (2-10-2) east of Vista, Nev. *Lucius Beebe*

THE OVERLAND MAIL

THE SIERRA NEVADA MOUNTAINS ON THE SOUTHERN PACIFIC.

SOUTHERN PACIFIC'S ENGINE 3696 CLIMBING GRADE NEAR WELLS, NEV. W. R. Mc

CENTRAL PACIFIC SNOW PLOW TRAIN AT CARLIN, NEV., IN 1877

As many as 8 to 12 small, wood-burning locomotives were necessary to push bulky snow plows through high snow banks in the mountains over transcontinental route of the Central Pacific. This plow and battery of locomotives were aided by small armies of men with shovels.

The JUPITER at Monument Point along the north shore of Salt Lake, May 1869

Ogden station. Like subway trains during rush hour, the transcontinental limiteds roll through the Union Station at Ogden in early evening. Starting with the *Pony Express* at 7:40, there is an eastbound Union Pacific train leaving every 10 minutes until the *Challenger* at 8:20. The Southern Pacific switcher in the photo is moving a cut of mail cars under the Ogden umbrella sheds.

OGDEN c 1920

LAKE VAN NORDEN

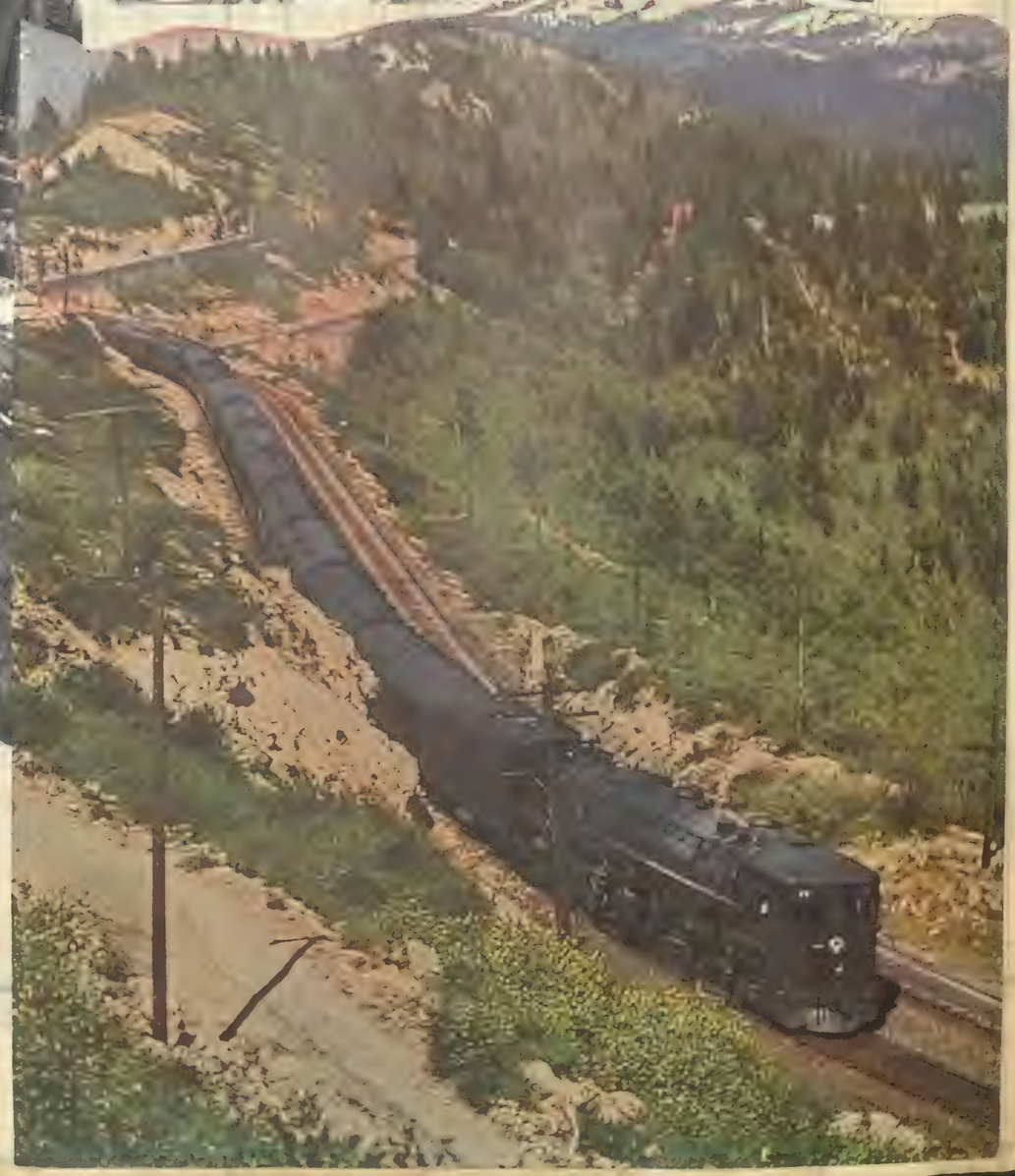
The *Pacific Limited* nears Yuba Pass.

Southern Pacific No. 14 east (No. 21 west) climbs the Sierras on the line of the old Central Pacific, pulling a string of sleek Pullmans upward toward the summit. It was on these slopes that Chinese coolies toiled with picks and pushcarts to cut Engineer Judah's grade in the great transcontinental race with the Union Pacific.

Truckee

David G. Edwards

AN AC-CLASS cab-forward 4-8-8-2, the very symbol of Southern Pacific in steam, marches across the Sierra near Colfax, Calif., with train 27, the Overland Limited.



Pullman Troop Sleepers WWII. The G I version of 1st class travel. McK, in identical equipment, on way to embarkation, passed over this trackage with H.Q.Co., XI Corps enroute to South Pacific Theatre.

A long freight stops on siding on western slope of the Sierra. All such "drags" stop on heavy downgrade for ten minutes every ten miles for train inspection and to allow heat in wheels to dissipate.

The western slope of the Sierra Nevada – the "Snowy Range" – is one of the snowiest places in the world. The average winter snowfall at Donner Pass—named for the tragic party of Overland emigrants snowed in at Donner Lake late in 1846 – most of them died of starvation, murder and cannibalism before they were rescued – is 31 feet; as much as 65 feet has been recorded. The snow caused the CP's builders more trouble than the rugged mountains themselves. Their solution was to build a roof over the railroad. Beginning in 1867, mile after mile of peaked snowsheds *(left)* were built over the track until there were so many miles of them – 40 in all – that a recently hired brakeman mented that it was the first time he'd railroaded in a barn. Most of the sheds have been removed, but a few still remain *(above).* *(Southern Pacific photos)*

Oh! the snow, the beautiful snow!
How the flakes gather and laugh as they go!
Whirling about in its maddening fun,
It plays in its glee with everyone.
John Whittaker Watson

OKM

Truckee River Canyon, California - Nevada, on Southern Pacific Ogden Route

THE HILL

Where once Charlie Crocker's Chinese coolies toiled to throw a railroad across California's Sierra Nevada, Southern Pacific cab-in-front 4-8-8-2 No. 4259 comes blasting around the rocky face of Cape Horn, some 1500 feet above the swift-running American River below.

FROM I-80 the westbound track above Donner Lake shows the 15-foot snowpack taking on a marshmallow sundae look. On this hill attempts to use nitroglycerin in tunnel excavation had disastrous results.

AC-8 4179 (BLW 1939) thunders up the "Hill" west of Truckee with 15 cars of Trn # 295, Sunday only local from Reno to Oakland

ern Pacific cab-forward, with blasting stack, pushes extra west out of Truckee, Calif., on a hot July 3, 1950.

WITH AN ASSIST from a doughty 2-8-0, AC-11 4268 hoists No. 28, the eastbound Overland, through Dutch Flat, Calif., on the way up the Sierra crossing known as "The Hill."

Extra 4185 west along the Truckee River

Courtesy Southern Pacific.

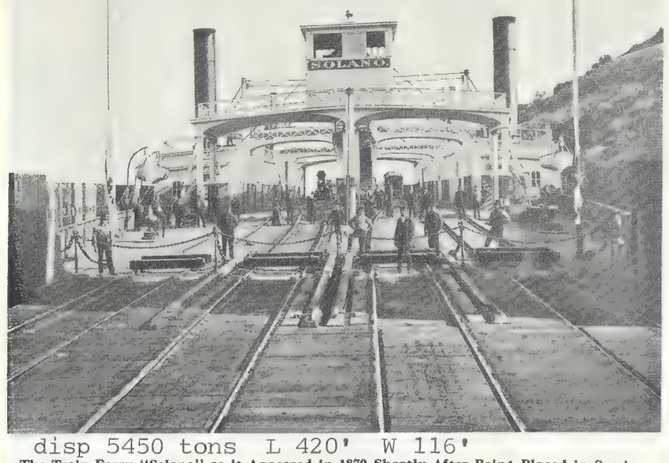
Overland Limited eastbound

H. L. Kels

Southern Pacific's famous cab-in-front compounds run backwards. All are now simple articulateds. We see No. 4270 rounding Cape Horn near Colfax, Calif

Southern Pacific Fruit Train Near Roseville, California

Designed & built by Arthur Brown,
Super Bridge & Bldgs, C.P.R.R.



disp 5450 tons L 420' W 116'

The Train Ferry "Solano" as it Appeared in 1879 Shortly After Being Placed in Service Between Benicia and Port Costa

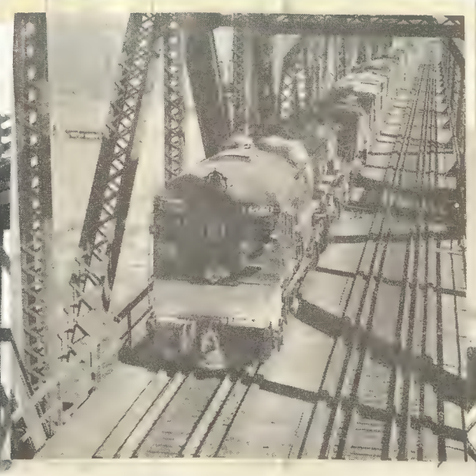
SOLANO c 1915

A View of the "Solano" Taken Shortly Before it was Retired, After Fifty-one Years of Almost Constant Service

Trn #19
Eng 2438

The "Contra Costa," the Largest Train Ferry in the World, Placed in Service Between Benicia and Port Costa in 1914

The "Overland Limited" Gathers Itself Together After Train Transfer Across Carquinez Straits via the Largest Train Ferry in the World. Train Transfer Between Benecia-Port Costa was Abandoned After Opening of the Martinez-Benecia Rail Bridge.



On the bridge itself is Roseville-bound Extra 4150 East — long tonnage behind a silver-chinned veteran 4-8-8-2. The structure is known as the heaviest railroad bridge west of the Mississippi and elevates Espee's Overland Route across the Carquinez Straits, 70 feet above water.

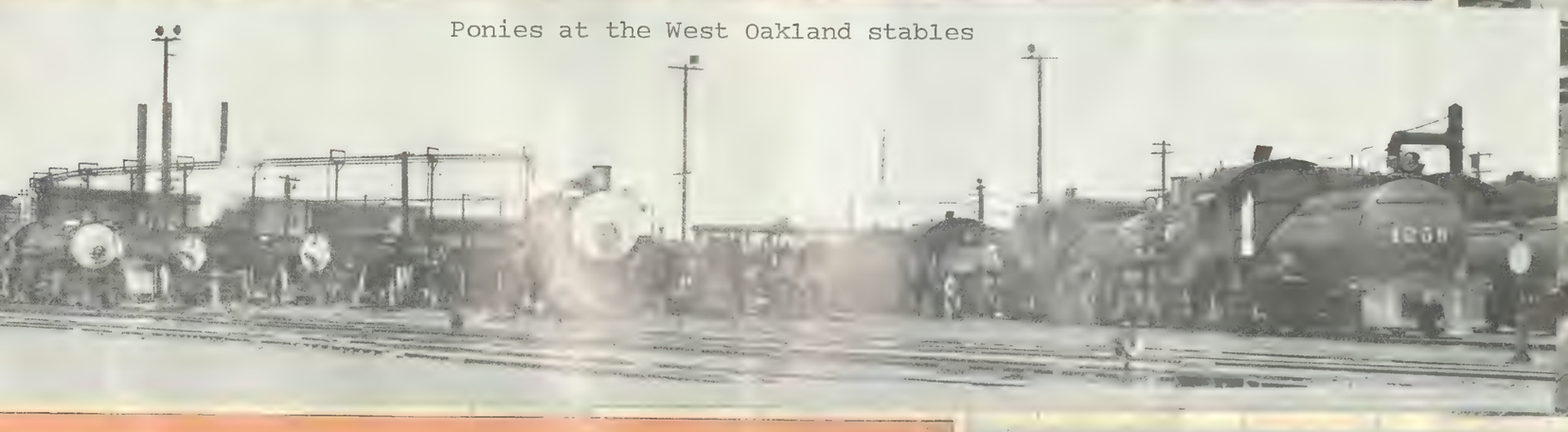
The Martinez Bridge Opened to service 10/15/30 *Courtesy Baldwin Locomotive Works.*

Trn 226 Berkeley

East Bay Freight. Southern Pacific 4-8-8-2 4230 rolls down the mud-street right-of-way through Berkeley on the east side of San Francisco Bay in August, 1955.

A GS winds tonnage along Carquinez straits

Ponies at the West Oakland stables



Throat tracks Oakland Mole (c 1915)

Oakland Mole (c 1925)

In July 1945 the S.P. purchased ten 2-8-4 (the only 2-8-4's ever on the roster) from the Boston & Maine. Being coal burners they were assigned to the Rio Grande Div. Noed 3500-3509 were ex B&M 4000, 4002, 4005, 4006, 4009, 4010, 4012, 4013, 4014 & 4019 . On the B&M were class T-1a built by Lima 1928. In 1950 were converted to oil burners and transfered to the Pacific divisions. At right the 3500 with Trn 780 wheels thru Lerdo, north of Bakersfield, in Feby 1950. Above, the 3505 as a coal burner, departing El Paso.

SYBARIS and sister car Aladdin are believed to represent Pullman's first venture into brass-railed observation platform.

SETTING in sleeping cars was lush with flowered upholstery, polished wood paneling, and gleaming electric lights.

AUSTRALIA (above) was one of electrically lighted vestibuled varnish sleeping cars built by Pullman for Golden Gate Special.

ALADDIN posed on transfer table; observation-library car was companion car of Sybaris on Overland Route in late '80's.

DINING CAR *Southern Pacific dining cars are noted for delicious food served with real western hospitality and service.*

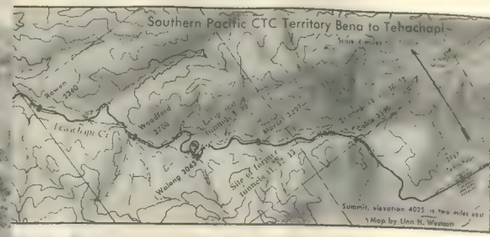
LOUNGE CAR *All transcontinental S. P. trains have lounge cars where you can rest, relax and read while the miles slip by.*

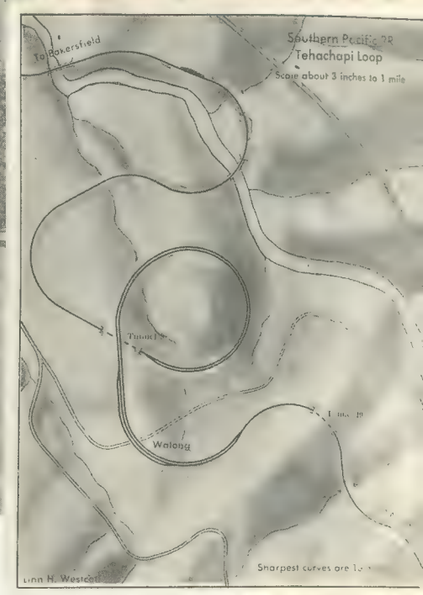
THE DERNIER CRI IN 1887

The interior of the sleeping-car Santa Barbara, built for the Espee in 1887 by Pullman, represented the last word in ornamentation and what was then esteemed as "elegance." Its seats upholstered in deep-red mohair; the woodwork and trim were of mahogany, English oak and satinwood, all elaborately inlaid and decorated with filigree and grille-work. The illuminating lamps burned oil and coal stoves were used for heating. Most Pullman cars at this time, before the inauguration of the dining-car on trains in the Far West, carried individual buffets for serving light meals when trains did not stop at station restaurants. Voyagers in an era of puff sleeves, Saratoga trunks and Florida water rode in these wooden museum pieces in the complacent knowledge that the finest was none too good and that no pains had been spared by the railroad to lap them in tasteful and simple luxury.

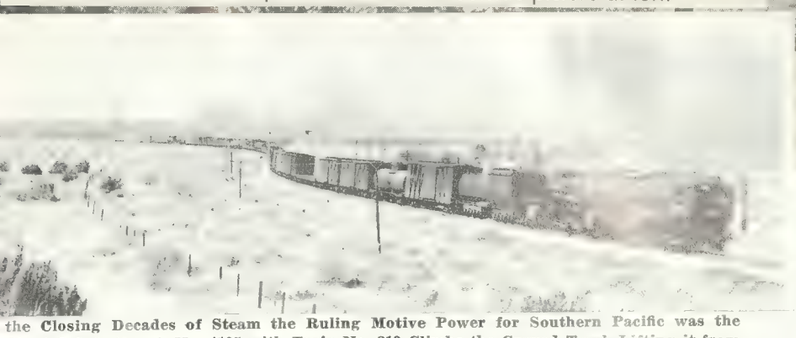
Tehachapi

The San Joaquin Daylight on the Tehachapi Loop, engineering marvel by which SP gains elevation to cross the Tehachapi Mountains near Bakersfield, Calif. Track passes under itself outside picture at left.





Southern Pacific and Santa Fe trains chase their own tails on grueling 2.5 per cent grade on the San Joaquin Valley line



the Closing Decades of Steam the Ruling Motive Power for Southern Pacific was the Giant Cab-in-Front. No. 4105 with Train No. 810 Climbs the Curved Track Lifting it from Antelope Valley at Palmdale.

A 4-8-8-2 Cab-in-Front Locomotive with a Mile Long Freight Drag Twists Around the Spiral Tehachapi Loop Seeking the Summit at Tehachapi Station.

Out of Bakersfield for Tehachapis-1908

Pacific Railway Journal

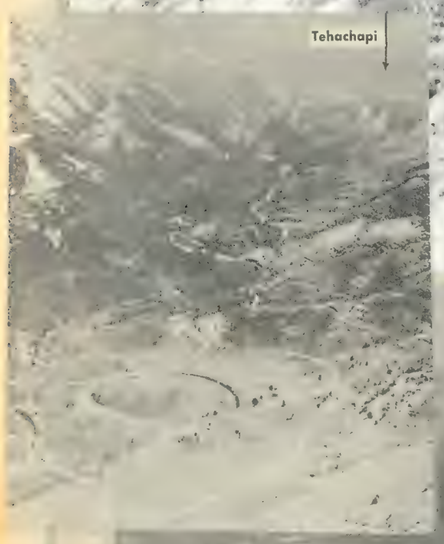
Mallet Locomotive of the 2-8-8-2 Type Moves Beyond Antelope Valley With a Los Angeles Bound Manifest.

Train No. 26 the San Francisco-Los Angeles Passenger Attacks Tehachapi Grade near Mojave During the Early 1940's.

Photo by W. H. Thrall, Jr.

SOUTHERN PACIFIC'S EXTRA 811 WITH ENGINE 4110, CLASS AC-5, passing through one of the many tunnels before rounding Tehachapi Loop on the San Joaquin Division.

Climbing to Tehachapi



Hot brake shoes create a fog of white smoke under the cars of Southern Pacific's San Joaquin Daylight as the northbound train arrives at Woodford after descending 13 miles on a 2-to-2.5 per cent grade. Brakes on all cars are set and released by the engineer's skillful manipulation of one valve.

Walking down from Tehachapi

Santa Cruz 1907

old

Amount

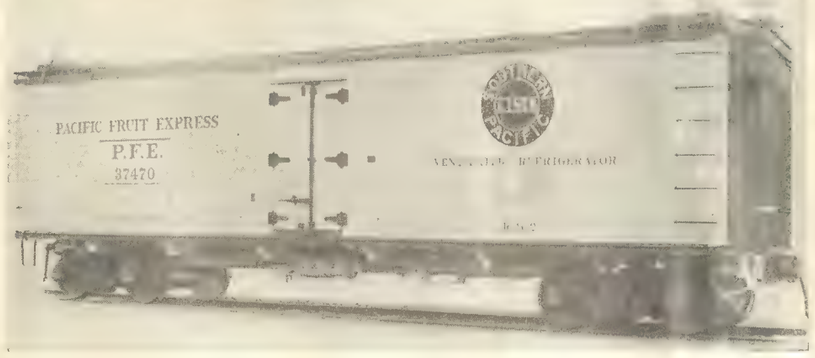
O&C

70-Ft. Steel Baggage Car Built by Bethlehem Shipbuilding Corpn., Ltd. 1925 6474-6488

A. J. Baker.

Southern Pacific's "Red Electric," the Portland, Eugene & Eastern, was another West Coast traction system controlled by class I interests. This five-car train of passenger motors was posed near Beaverton, Ore., back in 1922. The front vestibule, with its three marine-style ports, gave the train a continental air, and the high-mounted pantographs and leaded-glass windows added considerably to the effect. Initials O&C, above the cars number, referred to the Oregon & California — an SP operating name. Line today is diesel-operated for freight trains only.

apacity, 40 tons
ight weight, 53,700 lb.
oad limit, 82,300 lb.
side length, 33 ft. 2¾ in.
side width, 8 ft. 2¼ in.
side height, 7 ft.
uilt, July, 1928

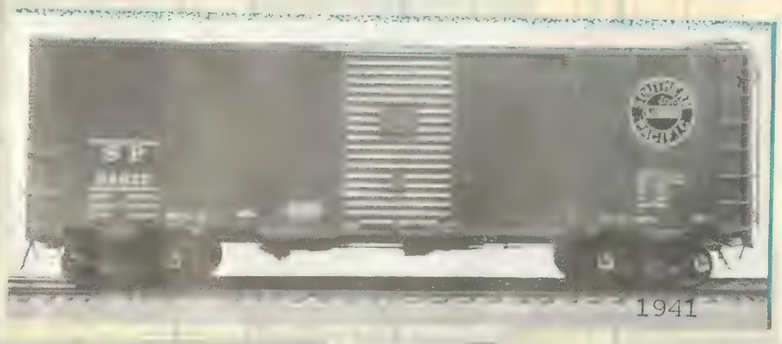


Refrigerator Car Built by the Pullman Car & Manufacturing Company

12,588 gals Nos 47800-48079

General American Car Co 1924

50-Ton Capacity Tank Car.



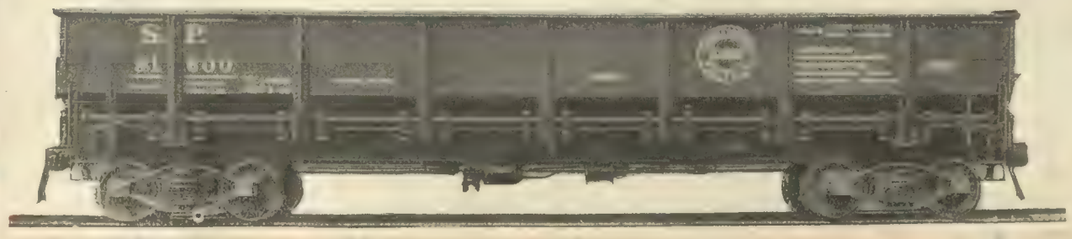
1941

Nos 73349-73798

Fig. 51—Steel Frame, Southern Pacific Stock Car. Capacity, 40-Ton, 2,596 cu. ft.; Weight, 35,500 lb.; Inside Length, 36 ft. 6⅛ in.; Inside Width, 8 ft. 5⅜ in. Builder, The Ralston Steel Car Company. 1924

Oakland

Ralston Steel Car Co 1925



Nos 91400-92399

ks. (Eureka 461)
ed in U. S. A.

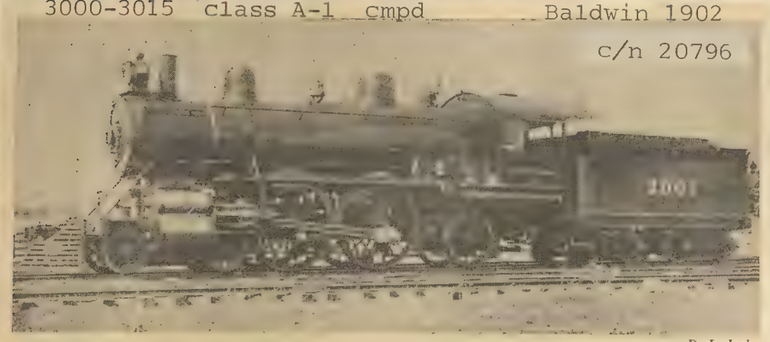
CUT HERE
To Make
Short Sheet

Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. N | nt | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount

A Magnificent Ballerina

2nd #3002 Class A-6 rebuilt from 3031 at Los Angeles in 1928.
Cyls 22x28 dws 81" TF 29,860#

3000-3015 class A-1 cmpd Baldwin 1902
c/n 20796



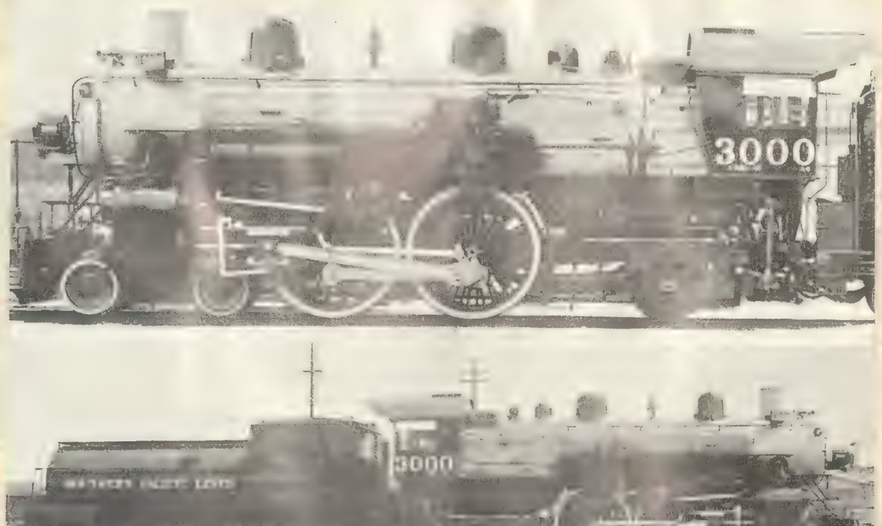
D. L. Joslyn

Seven-foot driving wheels with spider web spokes for fast running. Iron greyhound, *above*, was one of A1 (formerly N. A.) Class *Atlantics* with tallest drivers of any locomotive type over to run on SP tracks

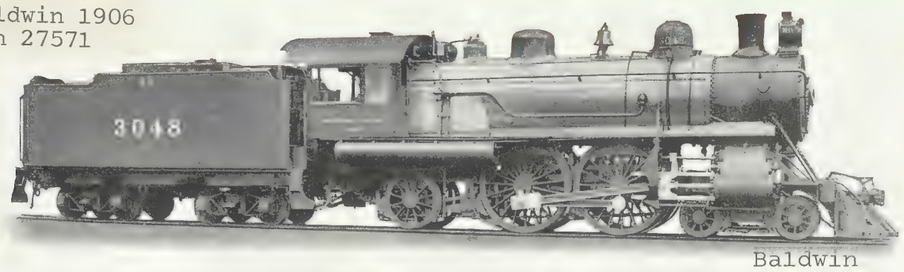
2nd #3000, rebl t from A-3 3058 at Sacramento in 1927 Fred Matthews Jr.

Sacramento Daylight connection for San Joaquin Daylight was originally wheeled by Atlantic No. 3000 and sister 3001. Train grew too large for them and is now hauled by P-4 class Pacifics.

3025-3037 Schen 1904



Class A-3
3038-3053
Baldwin 1906
c/n 27571



Baldwin

Atlantic Type Locomotive, Southern Pacific Co. **As originally built in 1906, to use Saturated Steam**

Cylinders	20″ x 28″	Tubes, diam.	2″	Wheel base, driving	7′ 0″	Weight, total engine	196,000 lb.
Drivers, diam.	81″	" number	297	" " total engine	27′ 7″	" " " and tender	355,000 lb.
Boiler, diam.	70″	" length	16′ 0″	" " " and tender	58′ 2″	Tank capacity, water	9,000 U. S. gal.
Steam pressure	200 lb.	Grate area	49.5 sq. ft.	Weight on drivers	105,000 lb.	" " oil	2,835 " "
Firebox	108″ x 66″	Water heating surface	2,655 sq. ft.			Tractive force	23,500 lb.

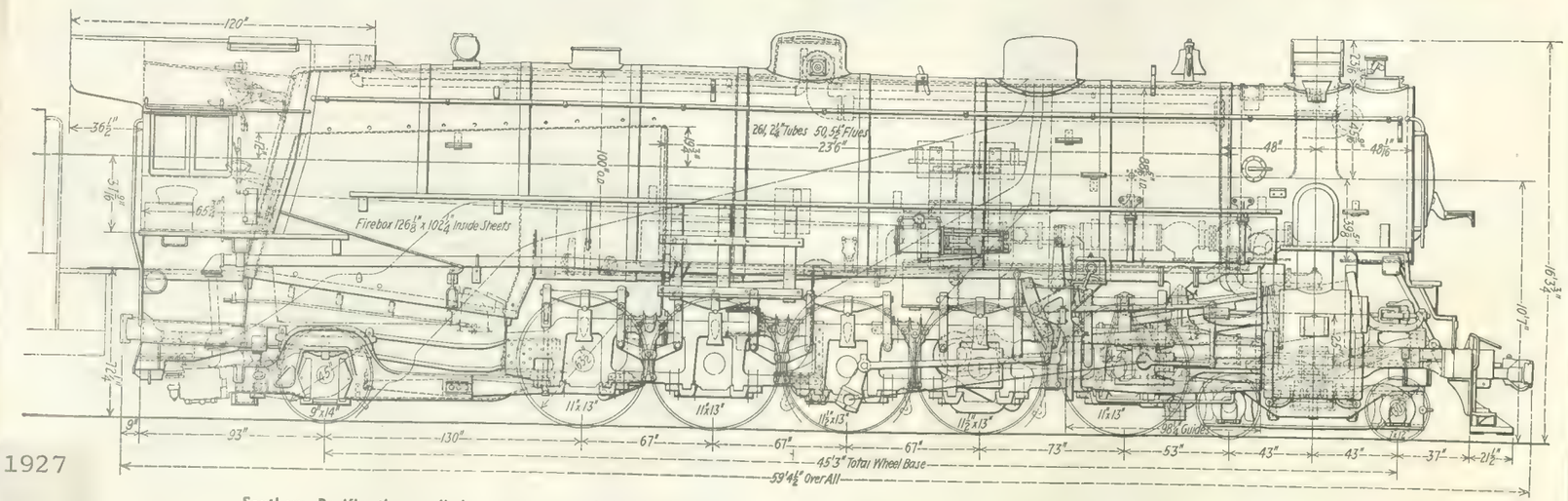
2

5011 makes a foto run by

With cylinder cocks open the 5012 gets under way at Pomona with train #822, a long string of iced reefers with produce for the Eastern markets.

Sold	Amount	Clos. No.	Sold	Amount

One of the 4-10-2 Type, Three-cylinder Locomotives, Built by the American Locomotive Company, in Freight Service



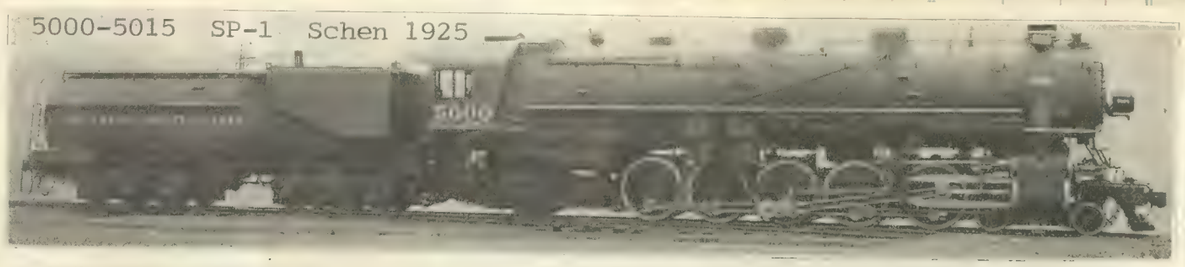
Southern Pacific three-cylinder passenger and freight locomotive No. 5043, Class SP-3, equipped with trailer booster. Built by the American Locomotive Company, Schenectady Works, August 1927.

5039-5048
3 cyls

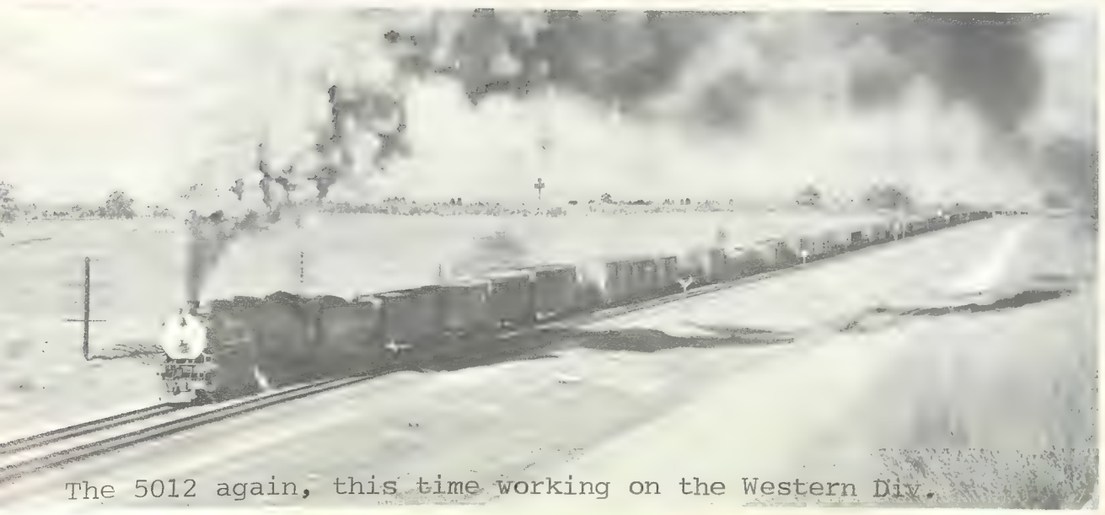
c/n 67413

Schenectady 1927

5000-5015 SP-1 Schen 1925

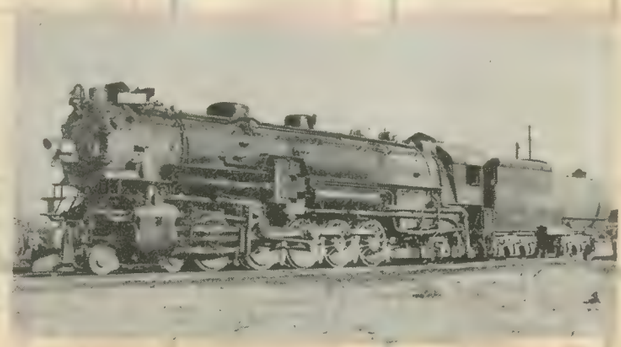


Southern Pacific (4-10-2) Type Three Cylinder Passenger Engine. This is One of the Latest Developments in Locomotive Construction.

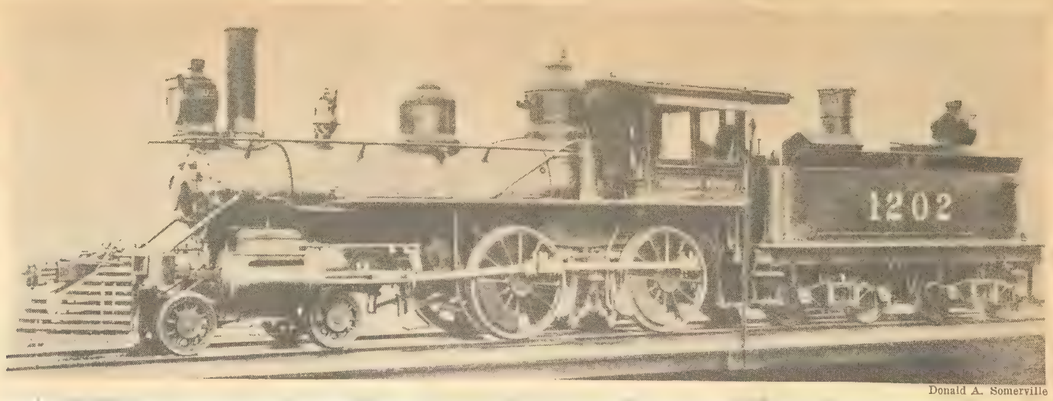


The 5012 again, this time working on the Western Div.

Donald Duke



#72, Salinas to Los Angeles local



Donald A. Somerville

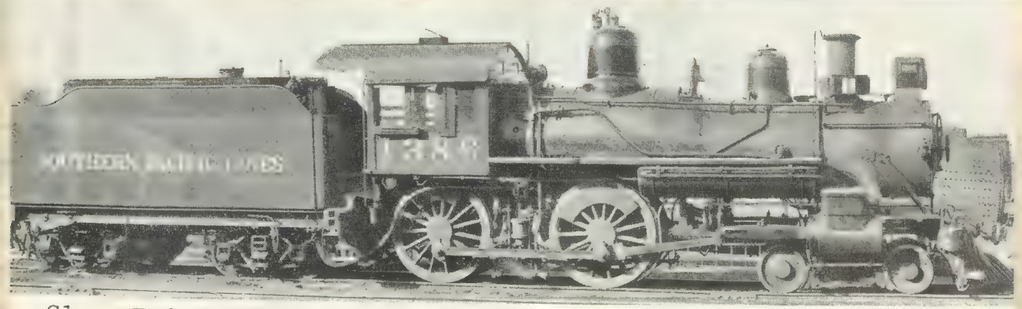
This old coffee pot rolled many a mile in revenue service. In 1866 Rhode Island built four engines, noed 76-79, for the old C.P. The 1202 was C.P. #77, the "Confucius" (RI c/n 51). Noed 1202 in 1891, retired 1898

***The Lark* on the last lap of its overnight journey.**

Behind a Lima-built streamlined 4-8-4 *Daylight* type engine, the Southern Pacific's all-Pullman *Lark* from San Francisco, 15 cars long, swings down the last lap into Los Angeles. In the background are the Santa Susana Mountains which the train has just crossed, and behind the locomotive is Chatworth station, 28 miles out of Los Angeles. Aside, perhaps, from the *Daylight* streamliners, the now-streamlined *Lark*, with its double bedroom, roomette, drawing room, and compartment cars, is the SP's pride and joy on its Pacific Coast run. This picture was taken in 1939, before the train had been re-equipped with Pullman-built lightweight cars.

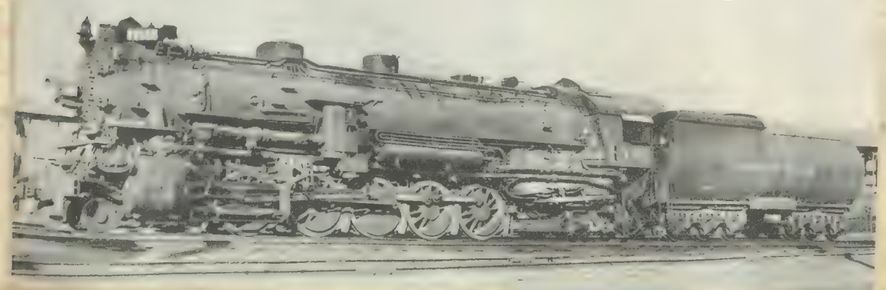
T-2 Cooke 1893

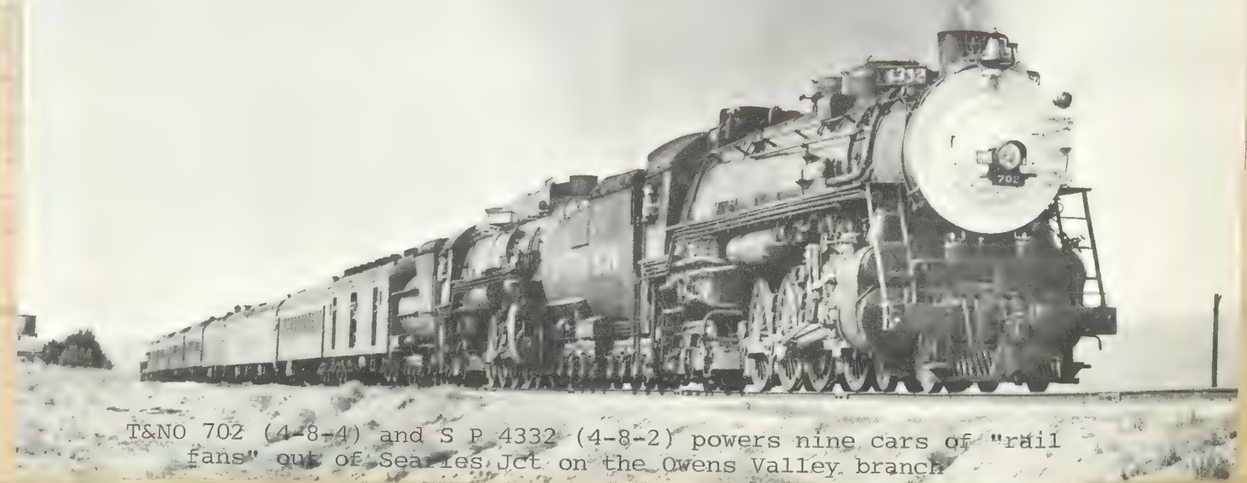
Business wagon #103 "Los Angeles"



Class E-4 Rogers 1888 1382-1401 Org #349 D. L. Joslyn, 2164 Castro Way, Sacramento, Calif.

5016-5038 SP-2 c/n 66804 Schenectady 1926





T&NO 702 (4-8-4) and S P 4332 (4-8-2) powers nine cars of "rail fans" out of Searles Jct on the Owens Valley branch

C-10 Consolidation (Baldwin 1911) ambles along with a westbound extra near San Miguel

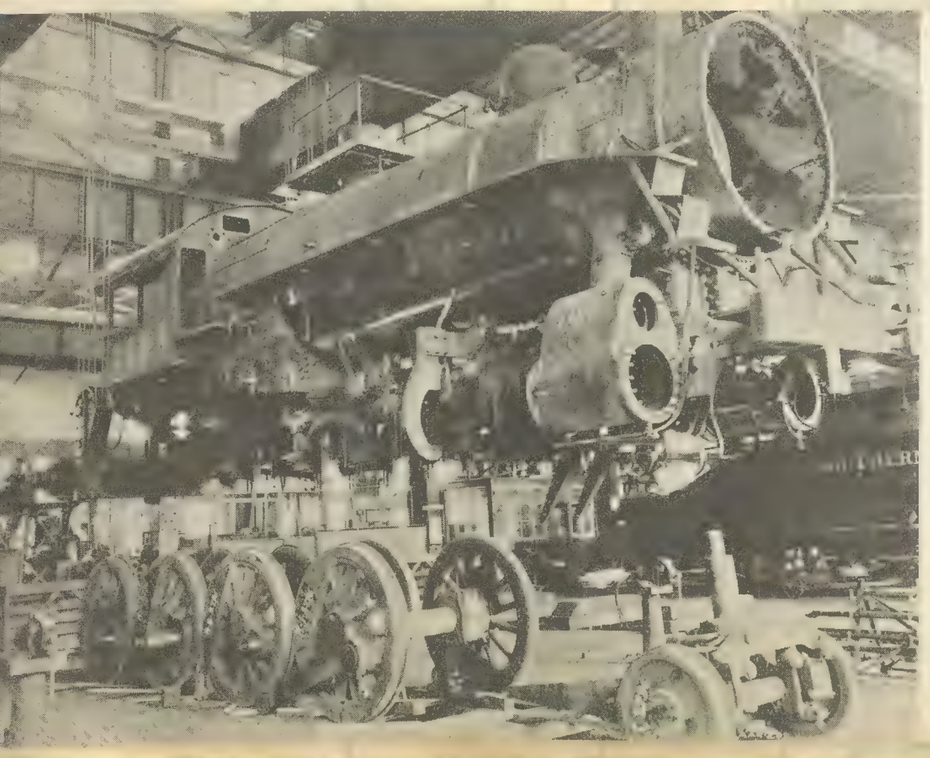
2513-2561
Baldwin 1907
c/n 30459

COAST DIVISION ENGINE

Southern Pacific locomotive 2558 is shown standing at the roundhouse at San Jose, Calif. It runs in local freight service.

2810

2850



With the wheels blocked on the track, a giant crane lowers the mammoth boiler and firebox into place. So delicate is the control of these cranes that they can maneuver this enormous weight a mere sixteenth of an inch.

One of a Large Number of Consolidation (2-8-0) Type Locomotives, Built for the Southern Pacific by Baldwin Between 1902 and 1907

Cylinders	22″ x 30″
Steam pressure	200 lb.
Drivers, diam.	57″
Grate area	54.5 sq. ft.
Heating surface	3,573 sq. ft.
Weight on drivers	177,000 lb.
Weight, total engine	201,000 lb.
Tractive force	43,300 lb.

2668-2692
Baldwin 1903
c/n 23347

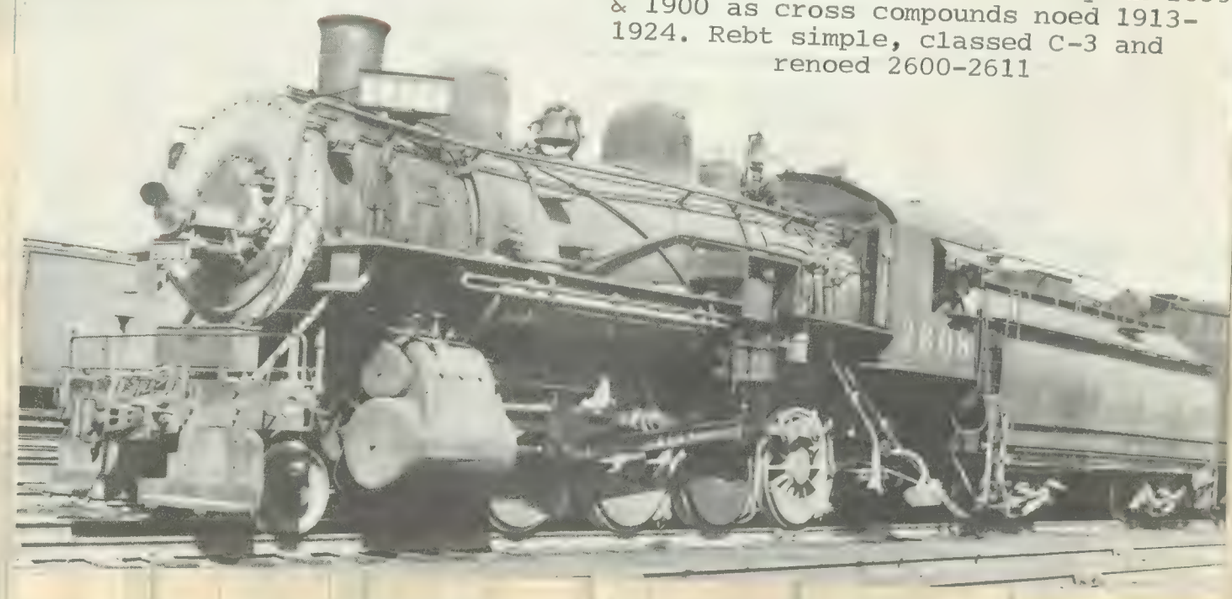
Amount

Los Angeles Shops 1918

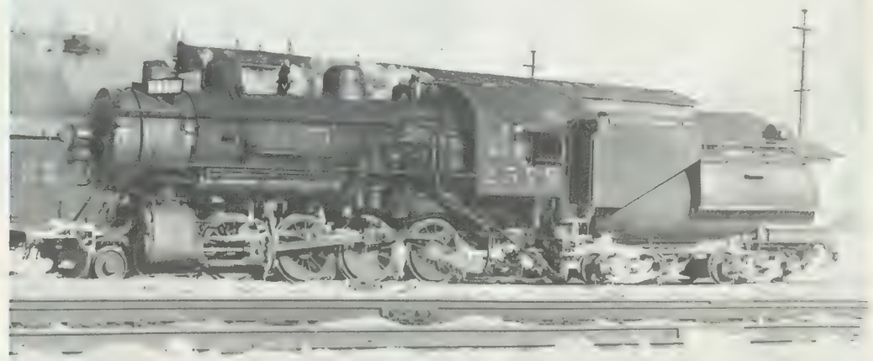
In 1907 Schenectady delivered twenty 2-8-0's to the El Paso & Southwestern noed 208-227. The 3452 was EP&SW 208 and later 292. All taken into SP roster in 1924, classed C-28. Sent to the SPdeM in 1926 but were returned to the Pacific lines by 1941.

See Pg 104 as EP&SW #292

2600-2611. Blt by Schenectady in 1899 & 1900 as cross compounds noed 1913-1924. Rebt simple, classed C-3 and renoed 2600-2611



The 2579 one of the C-9 Consolidations at Truckee in 1933. Blt by Baldwin in 1906 c/n 27681. Now on static display at Klamath Falls.



Another day, but same time, #51 arrives behind the 4431

At left..It's an overcast morning as #52, with her usual heavy consist, breaks away from the Mole and announces to one and all that she is under way on another run down the Valley to L.A.

The only Espee streamliner still drawn by steam is the San Joaquin Daylight, which gets a 4-8-4 north of Bakersfield. Here on Oakland Mole the 4467 waits to be cut off, and 30 minutes from now detraining passengers will be walking up the ramp into the Ferry Building on Market Street, San Francisco.

EAST BAY . . .

SELLER
DATE
FORM

DESTINATIO

Sol

LONG-HAUL passengers require spaciousness plus amenities. The 85-foot coaches of Southern Pacific's 1996-mile New Orleans-Los Angeles Sunset Limited seat only 44 in leg-rest chairs, include individual reading lights, ash trays, window drapes.

Operations in the Sacramento Canyon Pose Many Problems

94, the "Starlight" waiting to depart San Francisco on its first trip, October 2, 1949

"All-Day Lunch Cars" on the Southern Pacific

THE Southern Pacific now furnishes food and eating facilities in day cars on through trains, in California and adjacent states, to the extent of over 5000 train-miles daily, and the service is being extended. Twenty-four cars thus fitted up are now in

Lunching in the Day Coach

service, and lunch facilities are being installed in 13 new coaches now being built at the Sacramento shops. The company evidently finds the innovation very satisfactory, and it is proposed to put these cars on all through trains which have day coaches or tourist cars.

This enterprise was begun by the establishment of a coffee urn in a single car, with a man in charge to furnish coffee and sandwiches. The experiment quickly proved successful and as the service has been extended numerous additions and improvements have been made.

The "cabin" in which the food is prepared is completely fitted up with the conveniences usually found in a dining car, but on a smaller scale. These include an oven, gas plate, ice box, coffee urns, etc. The table, in the shape of a shelf, is clamped to the seat in front of that occupied by the diners, and this convenience is available at any

Southern Pacific "All-Day Lunch"

point throughout the length of the car. Passengers are also served at the lunch counter.

The cars now being fitted are to have each two standard dining-car tables, accommodating four persons each.

This food service is available for passengers who have their own lunch baskets, enabling them to supplement their basket provisions with hot coffee or other drinks. Mothers traveling with children can supply themselves with fresh milk, eggs and toast.

A sample bill of fare looks a good deal like that of a dining car and, the overhead expense being low, as compared with a dining car, it is intended to keep the prices at a moderate level.

From a sample menu, we copy some of the principal items:

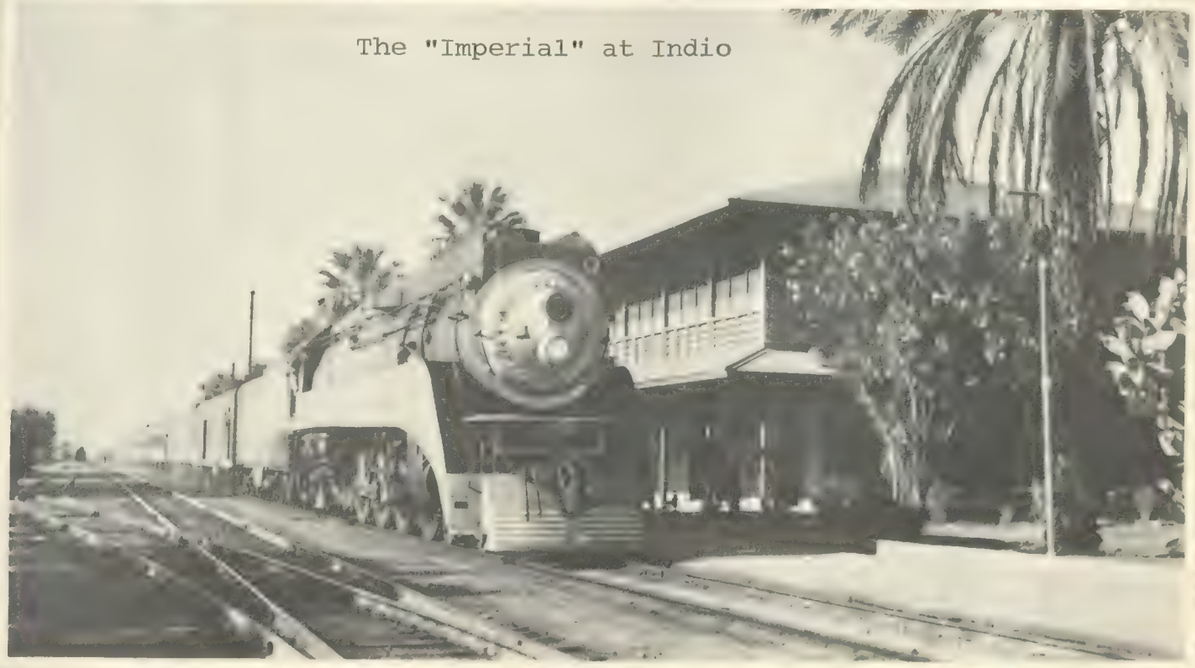
Jellies, 20; Orange, Apple or Banana, 10; Clam bouillon (Cup), 15; Dry Cereals with Cream, 25; Corned Beef Hash, 30; Prepared Meats, 50; Boiled Eggs, (1) 15, (2) 25; Bread and Butter, 10; Pie (per cut) 10; Doughnuts, (2), 10; Coffee (cup) 10; Milk (half pint bottle), 15.

Sandwiches are freshly made for each customer. Warm foods are served hot from the fire, and suitable refrigeration is provided for milk and other perishable articles. The attendant in charge of the car is specially trained for the service.

These cars are now run on the following trains:

Train	Distance
Train 6—Oakland, Cal., to Sacramento	89 miles
Train 14—Sacramento, Cal., to Portland, Ore	682 miles
Train 15—Portland to Oakland	767 miles
Train 13—Portland to Oakland	767 miles
Train 16—Oakland to Portland	767 miles
Trains 38-24-10—Oakland, Cal., to Ogden, Utah	778 miles
Trains 23-9—Ogden to Oakland	778 miles
Daylight Limited—San Francisco and Los Angeles	471 miles
Coos Bay Limited—Portland and Marshfield (Oregon)	121 miles

The "Imperial" at Indio



Sacramento 1917

67

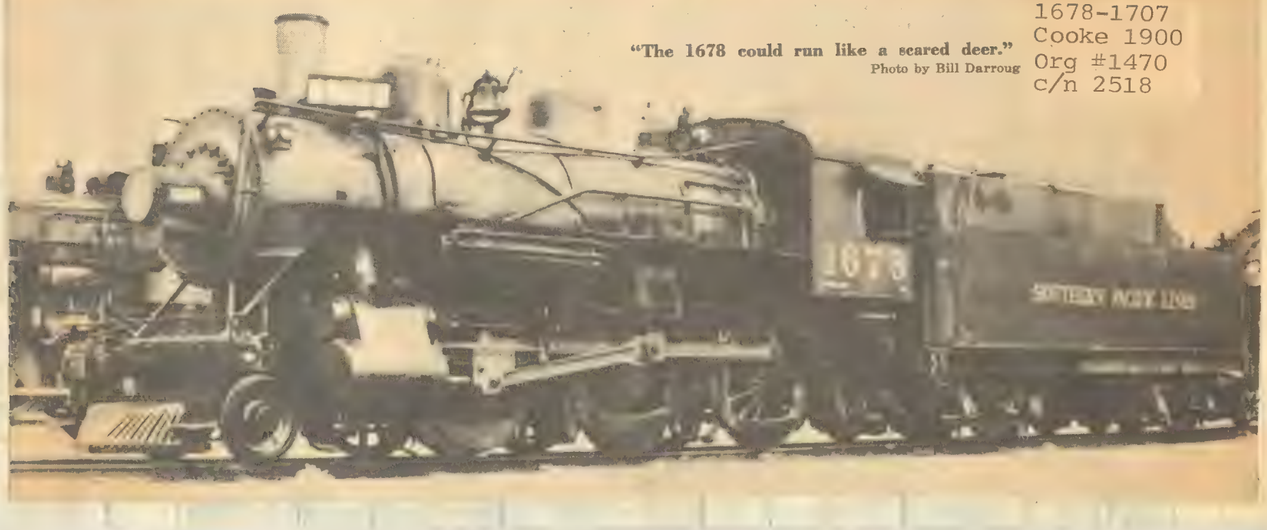
No one would argue that the 4-8-8-2's were big and impressive but could anything be more attractive than this little M-6 Mogul as she rolls along with a respectable cut of cars near Salinas

1789-1802
Baldwin 1903
c/n 22400
Sold to FdelP
#426 in 1951

1826-1827

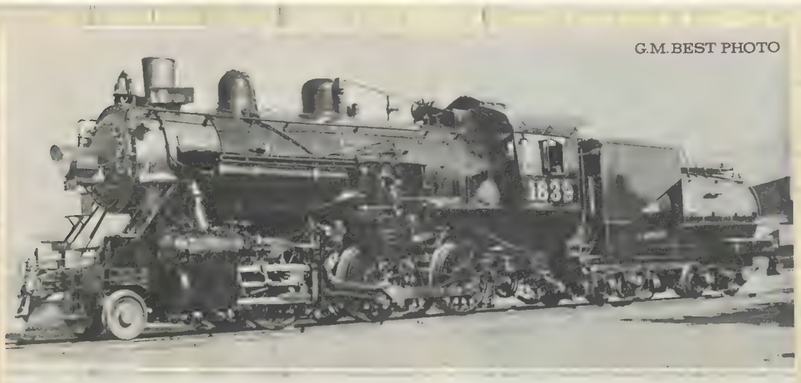
SOUTHERN PACIFIC RAILROAD NO. 1826

Road Class M-9, the No. 1826 was built in the Sacramento Shops in June, 1918. 63" drivers, engine weight 152000 pounds, and 21" x 28" cylinders help give this large mogul a 34990 pound tractive effort. Photo courtesy the Southern Pacific Company.



"The 1678 could run like a scared deer." Photo by Bill Darroug

1678-1707
Cooke 1900
Org #1470
c/n 2518

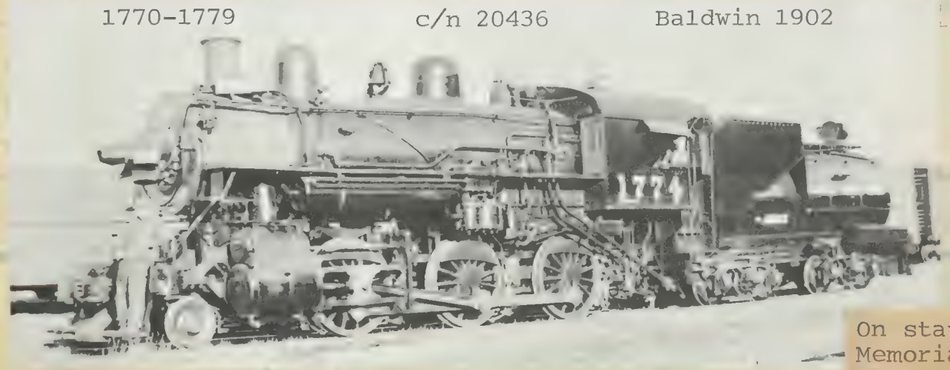


G.M.BEST PHOTO

Reported as the heaviest and most powerful Mogul (2-6-0) ever built. Ten engines were built at the Houston Shops in 1928-29 as T&NO nos 520-529. By 1939 had been tfr to the SPdeM. Two years later all were on the Pacific lines noed 1837-1845 class M-21. (the 525 was not renoed) Then in 1942 they were returned to the T&NO with orginal numbers. Renoed in 1950 to 676-684 and later same year were again renoed as 482-490. Last retired in 1954.

Some old Moguls of classic design are still in light service on SP. The 1658, built by Cooke in 1899, was originally No. 1460. Train number indicators alongside stack are characteristic of the road. By F. J. Peterson. M-4

1770-1779 c/n 20436 Baldwin 1902

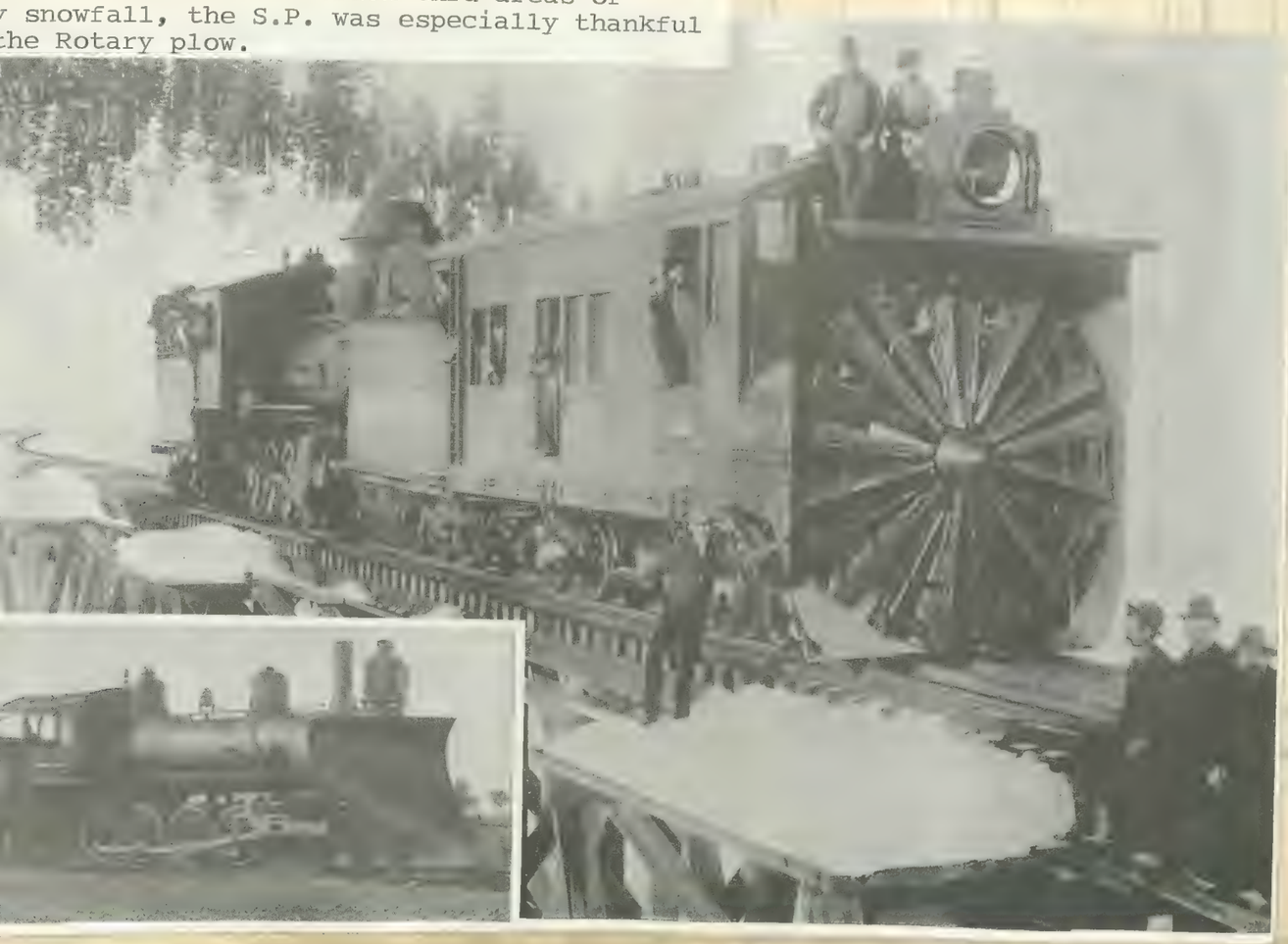


On static display
Memorial Park
Globe, Ariz.

LOOKING LIKE FROZEN SPAGHETTI STRANDS, these superheater tubes lie exposed after Southern Pacific No. 4402 burst near Richvale, Calif. on Christmas Day, 1931.

Reblt at Sacramento Feby 1932

countless miles of track thru areas of
snowfall, the S.P. was especially thankful
the Rotary plow.



OLD-TIME WRECK NEAR ALBANY, OREGON

Bro. John Phillips

DIV. 161, SAN FRANCISCO, CAL.

If you've seen any of the Southern Pacific Co.'s advertisements used over their system during the present war, you've probably seen the smiling face of Brother John Phillips, who is pictured in them as a typical and competent, hard-working engineer. That he was chosen for this is significant, for Brother Phillips, when he closed his railroad career recently, left behind him an excellent record of service.

J. PHILLIPS

He started this splendid career with the Western division of the S.P., going to work on June 10, 1902 in Oakland, Cal. In June of 1924, Brother Phillips transferred to the Coast division in San Francisco, Cal., where he was still employed at the time of his retirement, February 28, 1944.

Brother Phillips has been a member of the Brotherhood since June 19, 1912. He was originally initiated into Div. 283, but has been a member of Div. 161 since November 7, 1924, when he transferred. His Brotherhood record is as fine as his railroad record, and he has many friends among his Brothers and his fellow workers.

During their new found leisure time, Brother and Mrs. Phillips have many fond memories to look back on, and they can rest assured that John Phillips will always be held in highest esteem by all who knew him. Their address is 1740 Topeka Ave., San Jose, Cal.

This little station once served Aromas, California which is located five miles north of Watsonville Junction near San Jose on the "Coast Line". The photo was taken around 1912.

Sold Amount

#1775 blt at Sacramento in 1888 as C.P.#248, last 2204

Ralston Steel Car Co-1924
Nos 74740-74989

The 29 was built as OR&N #49 by Baldwin in 1882, c/n 6216. Then to O&C #29, S.P. 1513, 1601.

Winters aren't what they used to be! This trio of ten wheelers take a short rest at Ashland, Ore after bucking open the line thru the Siskiyous. Winter of '89-'90.

In 1905 the flooding Colorado broke into the Salton Sink and threaten to inundate The Imperial Valley. The S.P., and Epes Randolph, closed the breach.

Clos. No. | Sold

The flow of the Colorado River into the Salton Sea endangered Southern Pacific's tracks.

Southern Pacific sandbagged its right of way as Salton Sea waters lapped over the rails. The situation in June, 1905, was becoming serious.

Clos

Amount

The cost of the project was tremendous. Trains brought rock and other fill material from quarries as far away as 400 miles, backed onto the trestle, unloaded, then returned for more rock.

Efforts such as this finally closed the gap. SP's tracks in the Imperial Valley were saved, along with farms and communities bordering the Salton Sea. It was Randolph's greatest triumph.

Today, had Colonel Randolph's efforts failed, almost the entire county of Imperial, California, would be under water. There would be no towns of Calexico, El Centro, Holtville or Brawley. The valley would not be one of the world's great producers of citrus fruits, dates, alfalfa, cantaloupes, watermelons, cotton and barley. It would be, instead, a great freshwater lake — a land of broiling sun in summer, cold in winter, useless except as a tourist curiosity.

By June of that year it was dumping 4 billion cubic feet of water every 24 hours into Salton Sink. It buried the works of the New Liverpool Salt Company under 60 feet of water, partially destroyed the towns of Calexico and Mexicali, and swept away Southern Pacific tracks. Thirty thousand acres of crop-planted land went back to desert.

The river carried more silt and debris to the Salton Sea in nine months than was excavated from the Panama Canal. It threatened to wreck the irrigation system completely and send 20,000 settlers in a wild stampede from the valley.

"Nobody," writes George Kennan, historian, "had ever before tried to control a rush of 360 million cubic feet of water per hour down a 400-foot slope into a basin big enough to hold Long Island Sound."

California Storm Took Heavy Toll on Southern Pacific

February-March 1938

This road sustained major damage from catastrophic floods along its three main lines out of Los Angeles

...le Creek Cut a New Channel Through Freight Yard at Colton

In Soledad Canyon, Looking West from Point "E", Showing Channel Change No. 4 Between the Old Tenth Crossing and Tunnel No. 18

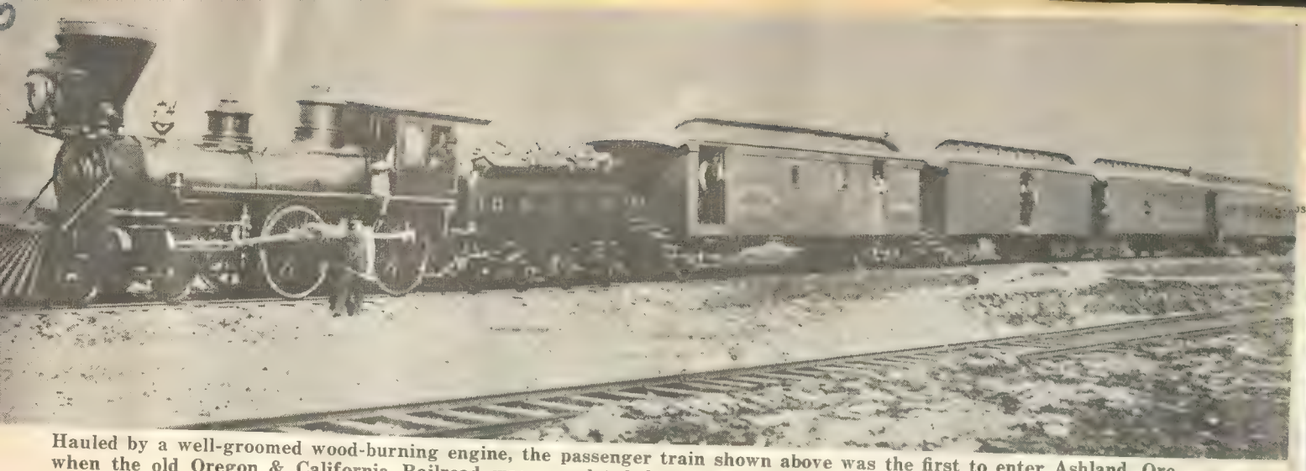
*In Soledad Canyon, Looking East from Point "F", Within the First Week After the Flood of Early March, 1938, Showing Line Rehabilitation Already Well Under Way

In Soledad Canyon, Looking West from Point "G" Toward Tunnel No. 19 and the Eleventh Crossing, Showing Typical Damage in the Canyon as the Result of the March, 1938, Flood

Project under way in upper Sacramento River valley to circumvent Shasta Dam reservoir, requires 12 tunnels, 8 bridges and extensive grading

Sketch Relief Map of the Territory Between Redding and Delta, Cal., Showing the New Reservoir Area, the Present Alinement of the Southern Pacific, and the Location of the Relocated Line

c 1940



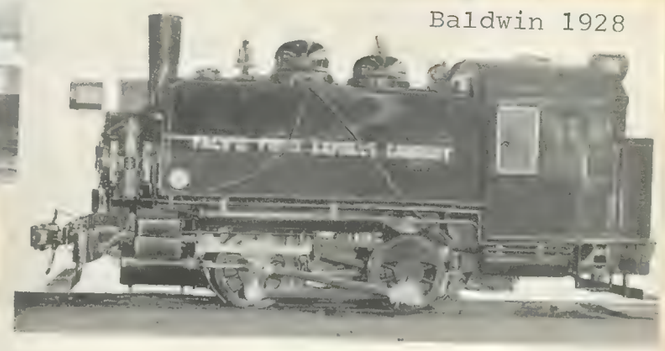
Hauled by a well-groomed wood-burning engine, the passenger train shown above was the first to enter Ashland, Ore., when the old Oregon & California Railroad was completed from Portland to Ashland in May, 1884. The Southern Pacific took over the O & C in 1887 and it became part of the SP through line opened between Portland and San Francisco in December, 1887.

Baldwin 1879 c/n 4557
To SP 1254, 1509.

SALES AT

Baldwin 1870
c/n 2146
to S.P. 1243
sold in 1906

d	Amount	Clos. No.	Sold	Amount



Baldwin Switching Locomotive Used by the Pacific Fruit Express Company at Roseville

Sacramento

Fred C. Stoes

SOUTHERN PACIFIC'S ENGINE 3670, SOUTHBOUND, LEAVING WATSONVILLE JUNCTION, CAL., YARD

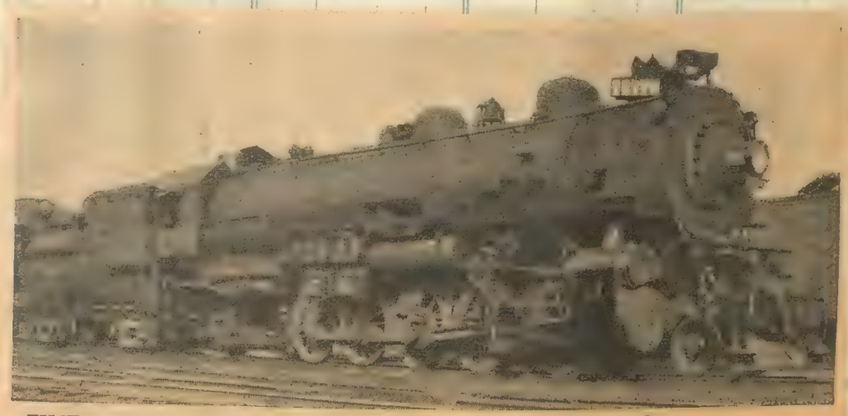
Shops of the Pacific Fruit Express Company at Roseville, California, at the Junction of the San Joaquin and Sacramento Valleys

Peterson.

ek, streamlined 4-8-4 and a standard 4-6-2 helper haul Southern Pacific's San Joaquin Daylight westbound through Soledad Canyon, Calif.

NUMBER 3690 was ditched by running through a derail on March 25th, 1938, but nobody was killed or even hurt

A GS-2, the 4415, heads Trn #374 the "Overnight" merchandiser of l.c.l. shipments thru Glendale



FIVE YEARS BEFORE the Saugus, Calif., wreck pictured on [illegible] page, the above shot of the engine involved, Southern Pacific No. 3690, was made at Los Angeles

Clos. No. | Sold | Amount | Clos. No. | Sold | Amou

Looking North Through the New Modern Coach Yard at Los Angeles

Courtesy Ed Cheetham

The Name "Overland Limited" is Only Slightly Less Old and Romantic in Railroad Legend Than the Golden Spike. It was the Pride of the Line and its Equipment Built Especially by Pullman was the Ultimate of Car Builders Know-How. Generations Stirred Among the Stately Consist of Thick Carpets and Overstuffed Armchairs and Picked up Cinders and Dust While Riding the Big Observation Deck as the "Overland Limited Raced West.

Three engines labor with a seven car varnish across the Dollarhide trestle as they work their way tword the Siskiyou summit in the days of "wooden cabs and iron men".

STOCK TRAIN CRASH. Wreck on the Portland Division in the 1890's killed a number of sheep, one of which shows at left. Engine was S.P. 1765, built in the Sacramento Shops in 1888 as the Central Pacific's No. 238, later became S.P. 2194. The big wood-burner was equipped with Master Mechanic A. J. Stevens' patent valve gear, called the "monkey motion" by S.P. enginemen.

4485

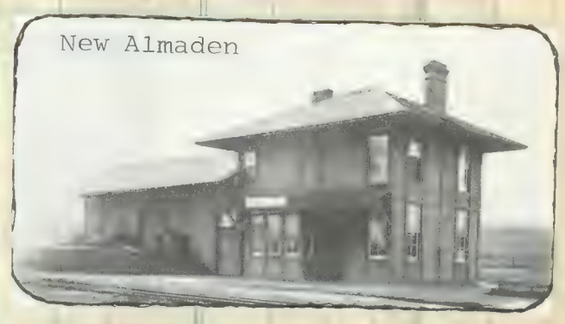
4488

During the summer of 1953 the Espee received its "last engines" when ten 4-8-4's were transfered from the Cotton Belt and noed 4475-4481 and 4485-4487 formerly StL-SW 800rds. One more, StL-SW #813, was tfr Feby 1956 and noed 4488. Was shopped in L.A. March '56, made trip to San Francisco and one commuter run, was on standy by for while and then retired.

HIGH STREET STATION in Alameda, California, forms the setting for this view of a narrow gauge varnish on the old South Pacific Coast Railroad shortly after the line was opened for through traffic to Santa Cruz. The woodburning 4-4-0 standing in front of the diminutive wooden frame depot is one of the American Standards built new for the road by the Baldwin Locomotive Works. Her crew, left to right, includes Engineer George Clark, Fireman Dan Quill (seated in the cab), Brakeman Jimmy Kelly, and Conductor Thomas H. David. (Courtesy of Southern Pacific)

THREE-FOOT GAGE POWER didn't come any handsomer than this Baldwin built ten-wheeler. Brakeman George Clark, standing just ahead of cylinder, is now county roadmaster for Santa Clara's Fourth District

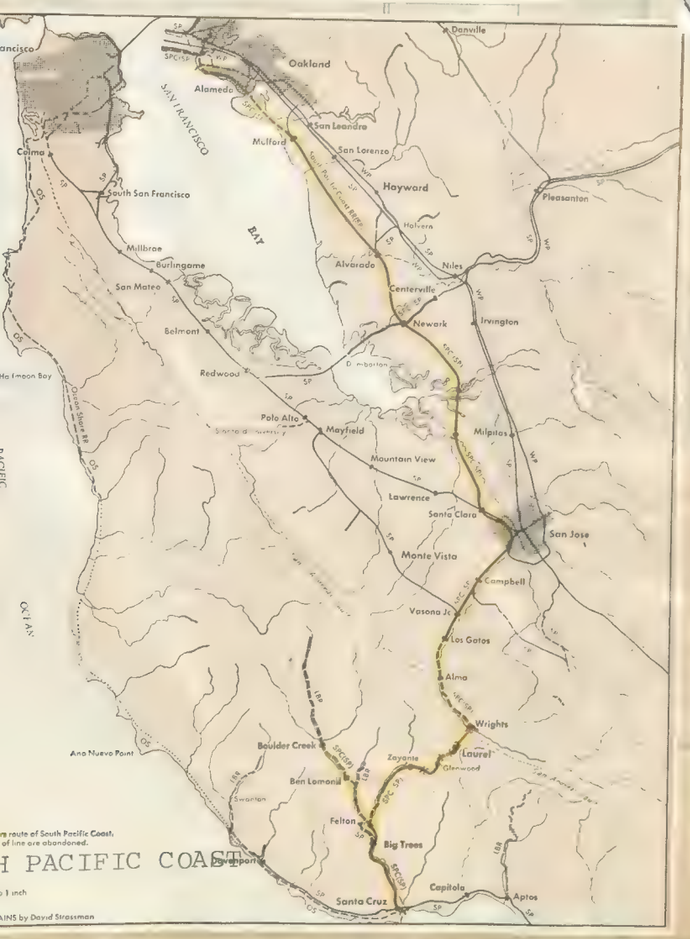
S.P.C. #2, Baldwin 1876 c/n 3970, at the Park Street station, Alameda



Built by Baldwin 1884, c/n 7249, to NPC #17 in 1907, later NWP 93

No 12 with some of her boys. A 2-6-0 from Baldwin in 1881 c/n 5650. Went to N&C #12 in 1906, then as SP #12 and was rebl t to a 4-6-0 at Sparks in 1921. Retired in 1934.

The SPC's tonnage hog. Built in 1882 by Baldwin c/n 6157. In 1906 went to N&C as #13, later SP 13. Tfr to the LTRy&P in 1915, retired 1927



#10 built by Baldwin 1880 c/n 4960
Sold to N.P.C. in 1907 as #2nd 10, to NWP #87, retired 1917

NARROW GAUGE ENGINE 10 OF SOUTH PACIFIC COAST LINE

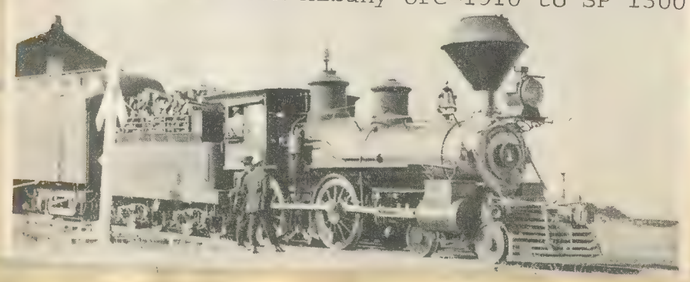
Photograph was sent to the JOURNAL by Brother Orrie Culver, Div. 186, who gives the information that the locomotive was photographed at Boulder Creek, Cal., in 1896. Fireman was H. F. Clouette, seen in cab, now Chief Engineer of Div. 704. Engine was sold afterwards to N. W. P. and used on narrow gauge between Sausalito and Cazadero,Cal., and was later cut up for scrap when narrow gauge track was abandoned.

Years ago a little narrow-gauge railroad, called South Pacific Coast, started at a pier on Alameda Island, across the bay from San Francisco, worked its way down the eastern side of the bay past Santa Clara, then wound up over the mountains to Santa Cruz on the coast. Later this was all acquired by the Southern Pacific and made standard gauge. Two years ago the line was abandoned, and where this double-header was snapped pulling a passenger train to the summit tunnels in 1937 there is now a superhighway instead of a railroad. This scene on the eastern slope of the hills is quite in contrast to the foliage on the western slope, where ocean fogs have built up dense forests of redwoods and deep green grasses.

The "alpha" and the "omega". A period of only eight decades from the beginning as illustrated by Harlan Hiney's painting of the JUPITER bringing Governor Stanford's special to Promontory for the historic occasion on the completion of the first transcontinental rail line on May 10th, 1869. And the finis is shown by the 4272, an AC-11, as she simmers quietly in the high desert location of Wendel, Calif. John Hungerford made this foto in the twlight of her career, Jan. 13, 1956.

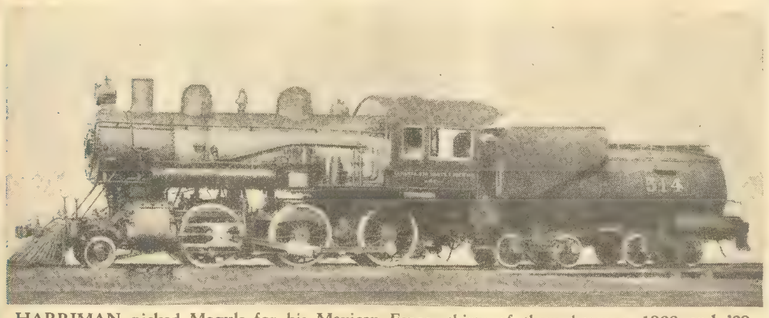
PACIFIC ELECTRIC • Los Angeles, California

Corvallis & Eastern-Albany Ore-1910 to SP 1300



Southern Pacific Railroad of Mexico

ALCO-BUILT Number 27 at Nogales, Ariz. Mexico's Southern Pacific handles the city's interchange, which in season means upwards of 100 cars



HARRIMAN picked Moguls for his Mexican Espee, thirty of them between 1908 and '09. Number 514 *above*, delivered to Cananea, Rio Yaqui & Pacifico by Brooks, transferred to the Houston & Texas Central roster in 1912

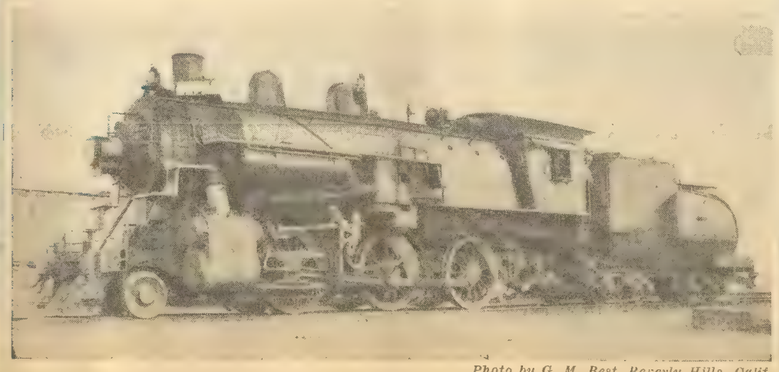


Photo by G. M. Best, Beverly Hills, Calif.

WORLD'S ten heaviest Moguls, leased to Sud Pacifico before the war, returned to Los Angeles after ripping up Mexico's track. Number 523 in SP yards after reassignment

Hotel Playa de Cortes

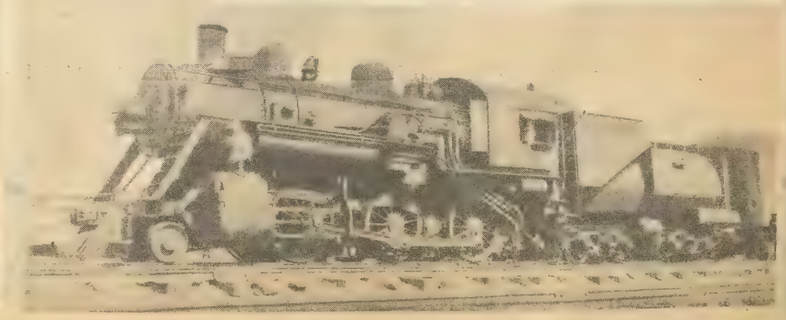
Southern Pacific's new resort near Guaymas on the Gulf of California. Finest fishing (boats for rent at hotel). Every room outside—also bungalows. Outdoor swimming pool. Season —Nov. 1 to July 31.

PURE SPRING WATER

Drinking water tanks of Pullman cars regularly assigned to service on Southern Pacific of Mexico are filled with pure spring water. Dining cars and extra Pullman cars are supplied with bottled spring water, which is served free of charge.

Map of the Southern Pacific of Mexico with a Large Scale Map of the Location Between Tepic and Orendain

1924



LEASED Engine 1804 takes a 25-minute stopover at San Blas with the daily passenger train. South of Mazatlan, heavier power is used

President McKinley Special Complete with Bunting Arrives on Alameda Street in Downtown Los Angeles During 1901 with Locomotives No. 2279 and No. 2281.

Epes Randolph
1856 - 1921

A C-9 Consolidation (2524) leads 2nd 401 Thru Altamont Pass

The 2422, one of the Harriman Pacifics, delivered by Baldwin in 1907 (class P-1) stands out side Roscoe (Calif) with the blower roaring.

Clos. No. Sold

000 1
Print

Amou

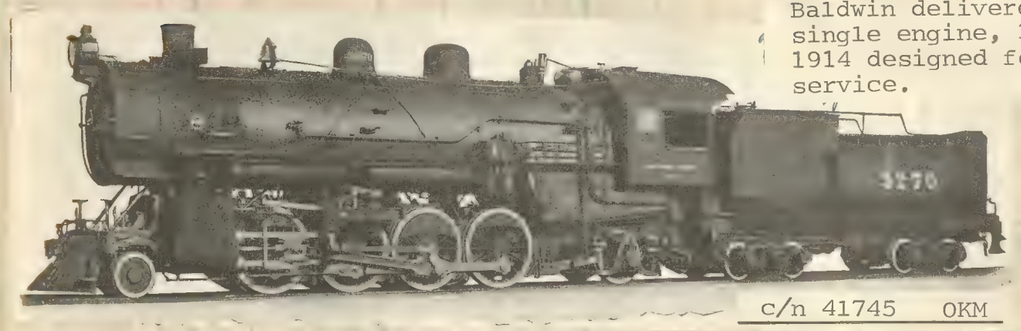
Sold Amount

SOUTHERN PACIFIC COMPANY.
(PACIFIC SYSTEM.)
Employee's Season Ticket for 1889
R. P. Earhart
BETWEEN
Portland & San Francisco
ACCOUNT OF
Director, O. & C. R'R
SUBJECT TO CONDITIONS ON REVERSE SIDE. 3
Dec 31st 1889. A. N. Towne

25

MK-4 3216-3240
Baldwin 1913 Southern Pacific No. 436 with Eng. 3222, a 2-8-2, in Niles Canyon enroute San Jose to Tracy, Calif. June 1948

Wesley L. Hammond



Baldwin delivered this single engine, 3270, in 1914 designed for dual service.

c/n 41745 OKM

In 1914 Lima constructed 20 Mikes (class MK-6) noed 3250-3269 of the Harriman pattern. 3258 c/n 1477 -

Mikado 3252 (class MK-6, Lima 1914) leads the tonnage of 2-738 northward near Merced, Calif.

L. Haug

SOUTHERN PACIFIC'S ENGINE 3217 AT OAKLAND, CAL.

3216-3240 Baldwin 1913 Class MK-4
The 3217 has been supplied with a 160-C type tender

76

Sold Amount

Engineering wonder of the Southern Pacific's Los Angeles-San Francisco Coast Division is this enormous horseshoe curve, just north of San Luis Obispo. Here, within a modest five miles of the Pacific Ocean, a heavy-tonnage drag of prewar days tackles the grade with No. 3709, the 2-10-2 road engine, and four helpers strategically spotted throughout the train. Notice the brakeman walking the roof of the PFE reefer behind the big 3709.

he 4458 pulls into Santa Barbara with 16 cars of the northbound "Daylight"

SANTA MARGARITA HILL

Southern Pacific watches read 12:53 p. m. as the Coast Daylight, No. 99, gets a roll out of San Luis Obispo. A 2-10-2 helper is coupled on ahead of the road engine to help lift the long streamliner over the 17 tough miles to summit.

Lighthouses of the railroad: a pair of semaphores on guard on Southern Pacific's line down the California coast make as appealing a scene as one might want.

Josef Muench

Ten cars of the "Coast Mail", Trn #90, swings thru an easy curve near Guadalupe with the 4441 doing the honors.

Even with C.T.C. and planned-for train radio, Santa Margarita Hill requires adroit dispatching to push all of its trains and helpers up and over, minus a bottleneck; yet somehow work trains (like Extra 3264 shown at the "summit" tunnel between Cuesta and Serrano) must be squeezed in for maintenance jobs.

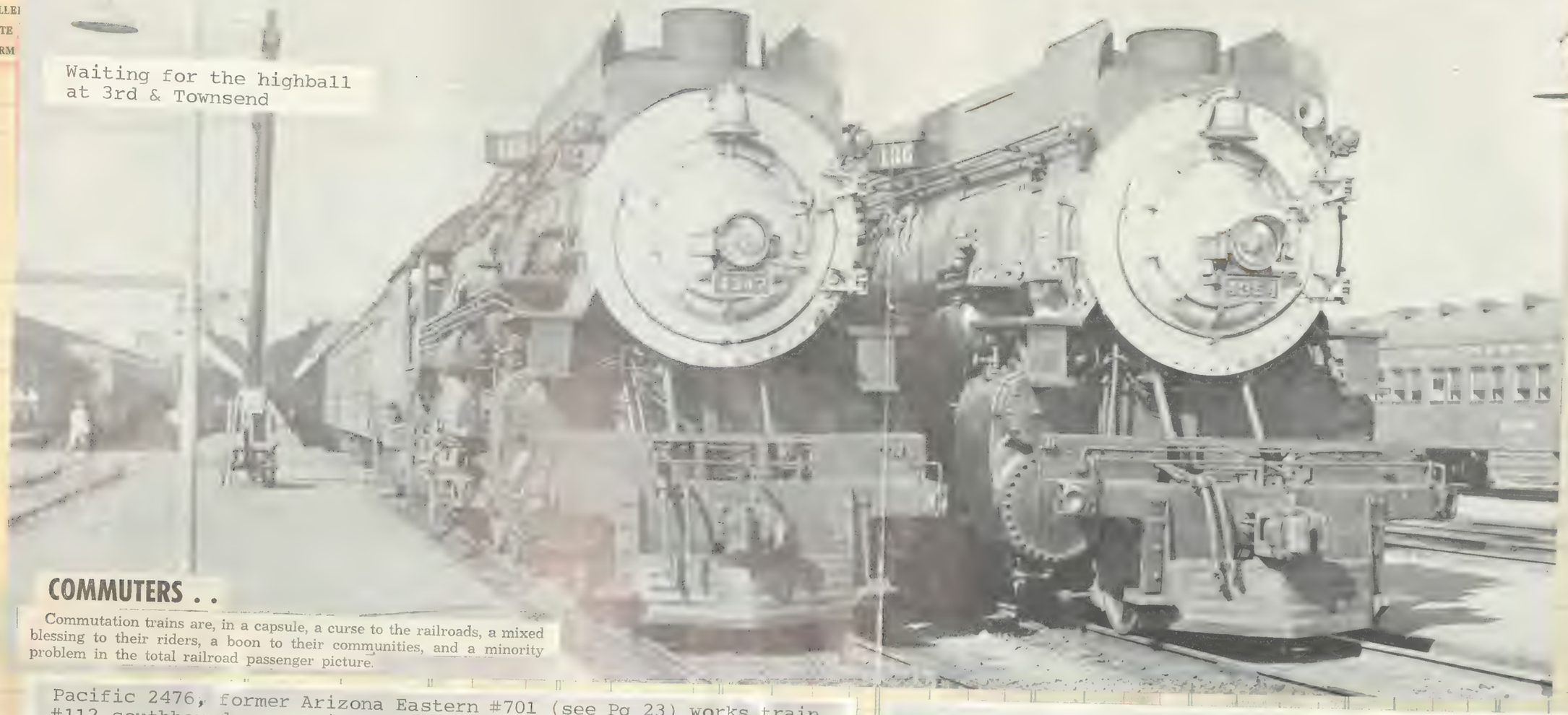
Against the background of an Army camp, a double headed troop train swings around the Horseshoe Curve on the climb to the crest of the Santa Lucia Mountains north of San Luis Obispo.

78

SELLE
DATE
FORM

Sold | Amount | Clos. No. | Sold | Amount

Waiting for the highball at 3rd & Townsend



COMMUTERS . .

Commutation trains are, in a capsule, a curse to the railroads, a mixed blessing to their riders, a boon to their communities, and a minority problem in the total railroad passenger picture.

Pacific 2476, former Arizona Eastern #701 (see Pg 23) works train #112 southbound near Brisbane.

Trn 151, a late afternoon run from San Jose, drifting into 3rd & Townsend. The 2487 came from Baldwin in 1924 c/n 57633

THREE-MINUTE HEADWAY of nonstop expresses permits virtually all commuters to be at their dinner tables by 6 o'clock. Trains all terminate at San Jose but run fast to intermediate stops. No. 130 (center) goes nonstop to California Avenue, 32 miles; No. 132 (left) does the same to Atherton, 28 miles; and No. 134 (right) is bound for Redwood City. Short-haul riders pay less than half standard fares for such fast, dependable, safe transportation.

Fred H. Matthews Jr.

ESPEE 4-8-2 4347 gets a wheel on the 5:26 p.m. commute out of San Francisco.

#147 at Menlo Park

Clos. No. Sold Amou

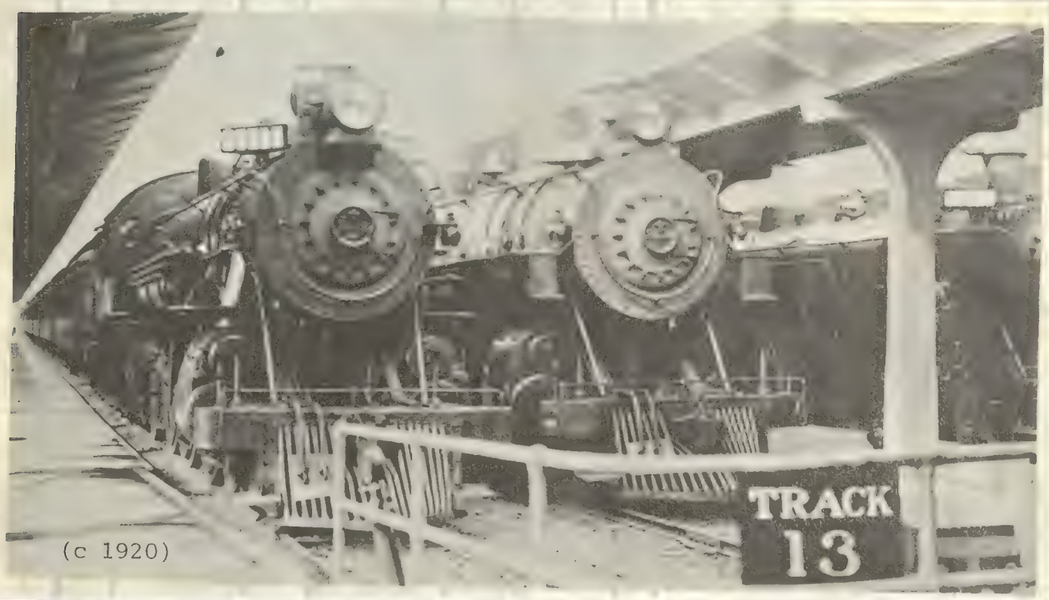
Clos

Clos. No. Sold Amount Clos. No. Sold Amount

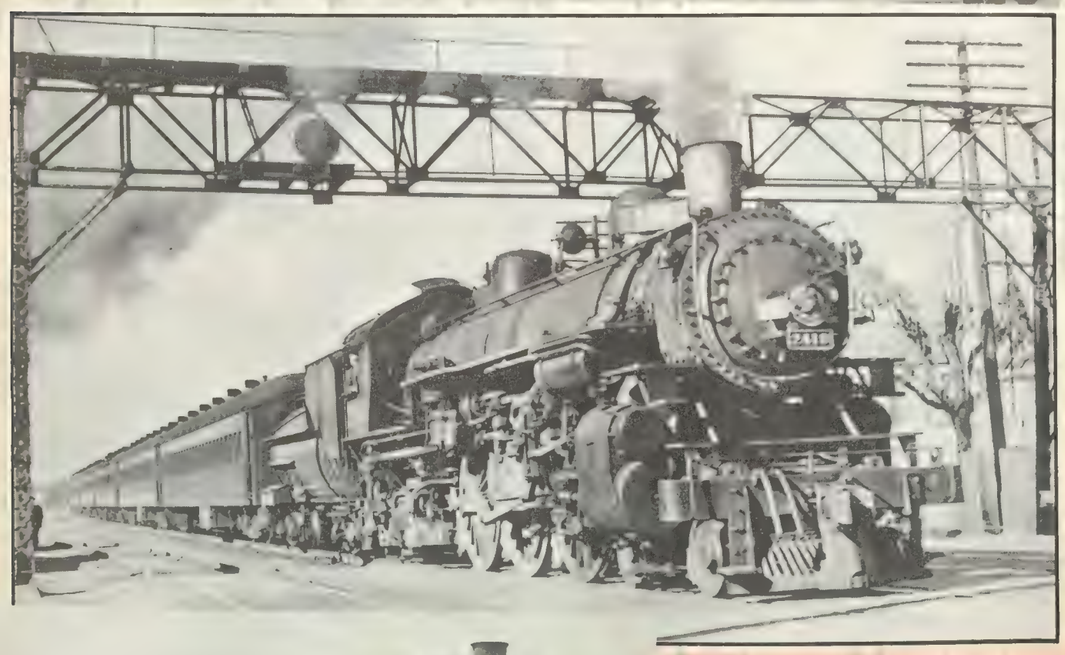
RUSH HOUR PEAKS pyramid commutation zone operating costs. Southern Pacific's suburban service on the San Francisco Peninsula requires a stand-by fleet of 28 engines and 206 cars—which is fully utilized only 2 hours a day. Train No. 121 has arrived at 8 a. m. at 3rd & Townsend Station in the big city; it will stand idle until these commuters go back home.

Commuters--now there is a strange breed of human. Their lives dictated by the alarm clock to catch the 6:52 each morning; then the extreme importance of getting out of the office promptly at 5:00 pm and the dash against time to make the 5:18 . Just gaze at all those happy faces (???) as they set forth to face another day!

The 2480 with #114 at Burlingame



(c 1920)



Out of San Francisco on its Coast Line the SP handles a heavy suburban traffic as far as San Jose, 47 miles. This is one of the many commuter trains which leave San Francisco for points south late in t afternoon.

The 2462 with Trn 112 nears San Jose

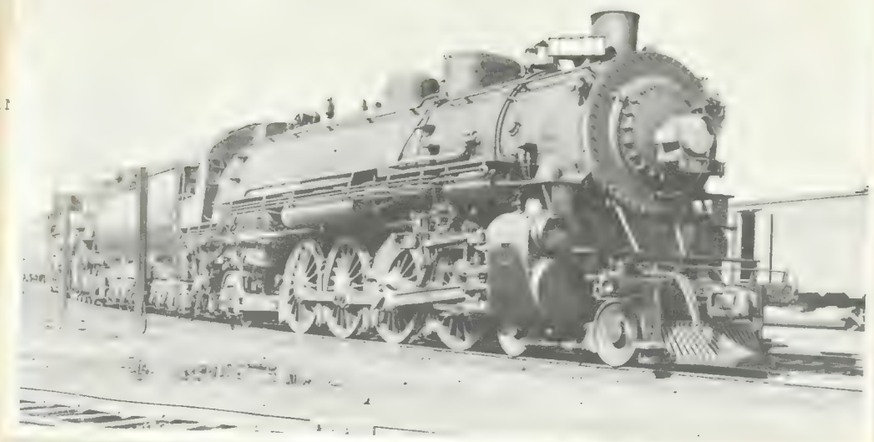
DURING THE DAYS OF STEAM, the SP operated a variety of power including 4-6-0's, 4-6-2's and 4-8-2's. This photo shows an evening suburban local to San Jose behind a 4-6-0 oil burner in 1934. Note the RPO-Baggage behind the steamer. Several commuter trains throughout the United States and Canada carried Mail and Express until after the Second World War, and some even carried mail until 1968. This occurred on the SP when the LA-Frisco mail train terminated at San Jose, and the mail cars and RPO were handled on two of the commuter runs. (Courtesy G. M. Best, Rail Photo Service)

2363-2370
class T-32
Brooks 1913
c/n 53315

80

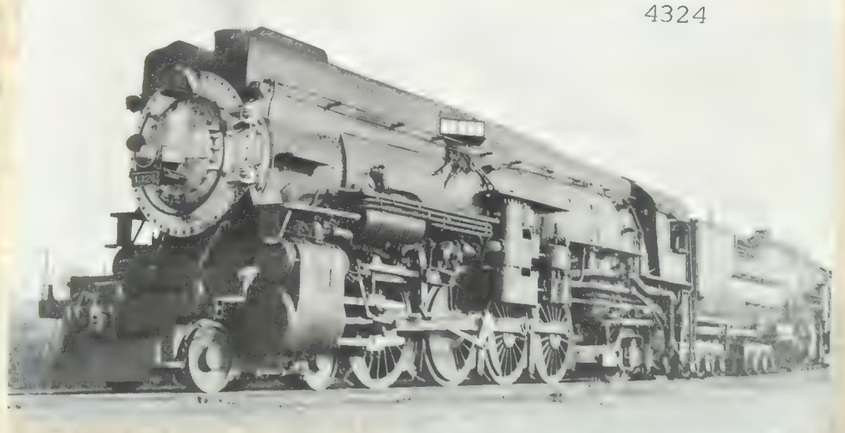
The brushes of Howard Fogg have given us this scene of Extra 4342 west wheeling tonnage over the Tucson Div as a beautiful sunrise outlines Picacho Peak.

4304



Sold Amount

4324



Courtesy Southern Pacific.

Class MT-1

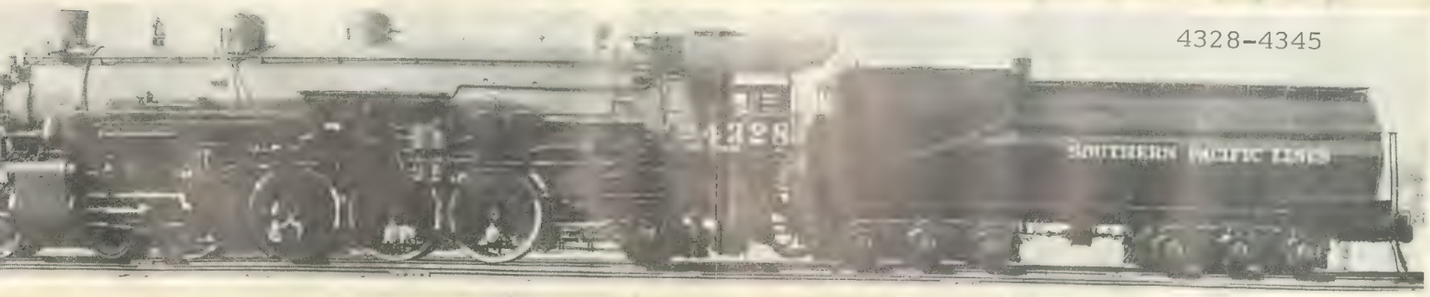
4300-4309	c/n 64891-64900	Schenectady	October 1923
4310-4327	c/n 65380-65397	Schenectady	March 1924

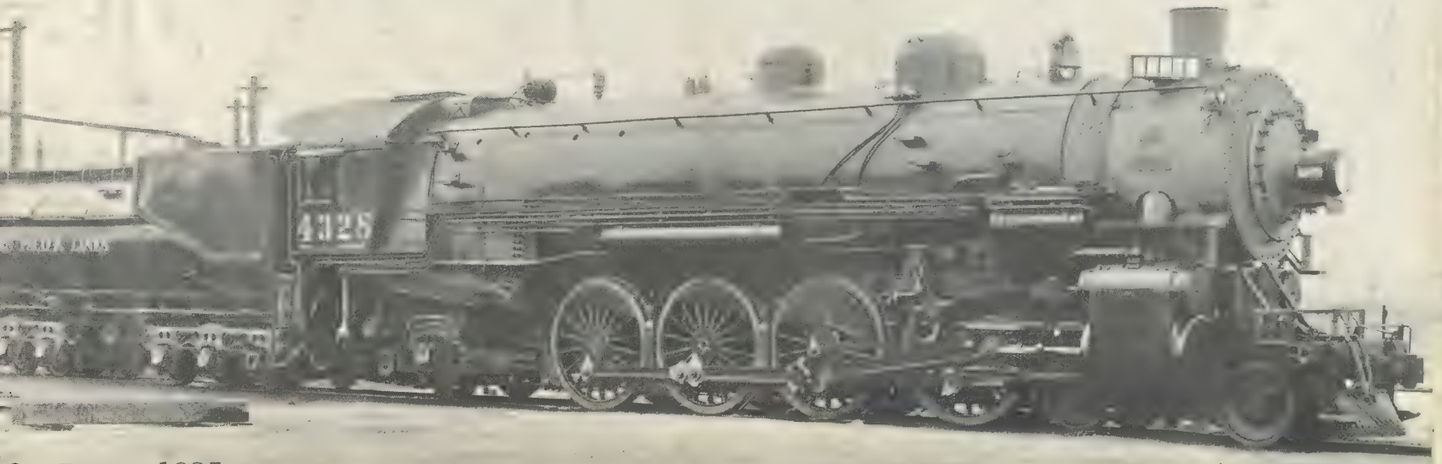
Specifications:

Road classification	MT-1
Road numbers	4300-4327
Date built	1923-24
Tractive effort, pounds	57,510*
Cylinder diameter and stroke, inches	28 x 30
Driver diameter, inches	73
Weight on drivers, pounds	246,000
Weight on pilot truck, pounds	61,500
Weight on trailing truck, pounds	60,500
Weight of engine loaded, pounds	368,000
Steam pressure, pounds	210
Evaporative heating surface, square feet	4556
Superheater, square feet	1162
Tender capacity: Gallons of water	16,152
Gallons of oil	4692

* With booster, 67,670 pounds.

4328-4345





-3 Espee 1925

No. 69—Coaster. Daily.

Full Lounge: ★Los Angeles to San Francisco (Valet and Shower Bath).
Standard Sleepers ★Los Angeles to San Francisco (Drawing Rooms, Compartments, Sections).
Standard Sleeper ★Los Angeles to Del Monte and Pacific Grove (No. 69 to Watsonville Jct., thence No. 196), (sections, Drawing-Rooms, Compartments).
Cafe-Lounge Sleeper: ★Los Angeles to San Francisco (breakfast service).
Tourist Sleeper: ★Los Angeles to San Francisco. **Dining Car:** ★(Dinner only).
Reclining Chair Car and Coach ★Los Angeles to San Francisco (Free pillows).

#69 with a consist of 16 cars, half of which are "head end work", hurries along past Sargent, California

Amount

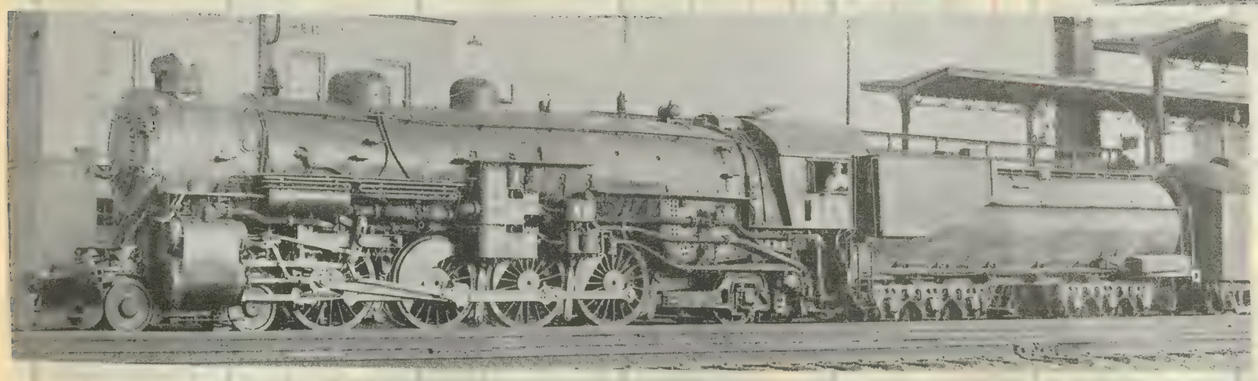
No. 76—Lark. Daily.
Full Lounge Car ★(Valet): San Francisco to Los Angeles.
Standard Sleeping Cars: ★San Francisco to Los Angeles. (Drawing-Rooms, Compartments, Bedrooms, Sections, Private Sections). **Cafe-Lounge Sleeper** ★ (Dinner Service).
Dining Car: ★(Breakfast only)
Lounge and Standard Sleeper: ★Oakland to Los Angeles. (Bedrooms, Drawing-Rooms, Compartments, Sections).
Standard Sleeper: ★Seattle to Los Angeles.
Full Lounge Car ★(Valet): San Francisco to Los Angeles.
Cafe-Lounge Sleeper: ★(Dinner Service): Oakland to Los Angeles.
Dining Car: ★(Breakfast only). **Coach:** San Francisco to San Jose (via Oakland Pier).

No 60, the "West Coast", ready for departure from Sacramento behind MT-5 #4367 Espee 1929

No. 15-60—West Coast. Daily.
Observation Sleeping Car: ★Portland to Los Angeles.
Standard Sleeping Cars: ★Portland to Los Angeles; ★Sacramento to Los Angeles;
Tourist Sleeping Car: ★Portland to Los Angeles **Dining Car:** ★For meal service.
★**Reclining Chair Car and Coach.** (Free Pillows.)

MT-5
4367-4376

SP MT-5 4-8-2



SOUTHERN PACIFIC'S ENGINE 4300 PULLING "OVERNIGHT" MERCHANDISE FREIGHT OUT OF LOS ANGELES

San Joaquin Daylight drifts down off the Tehachapis, northbound, in a cloud of hot brakeshoe smoke. behind pair of MT's

The "Sunset Ltd" near Alhambra

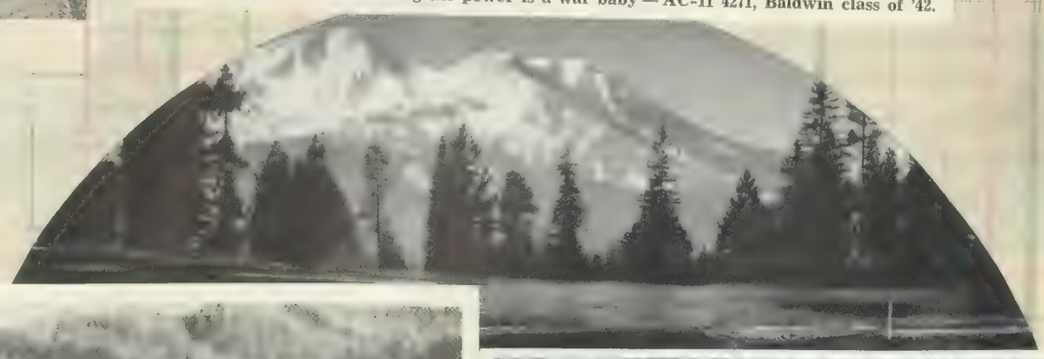
32

Shasta Route

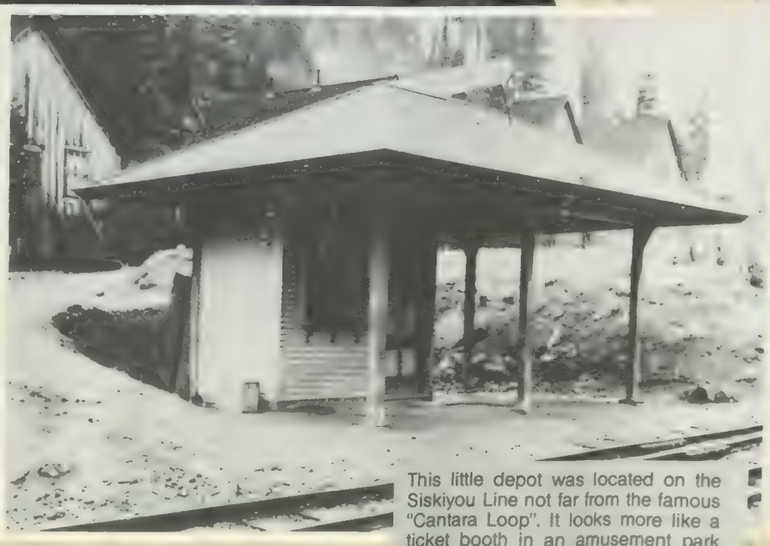
Mount Shasta and the "Shasta Route" in northern California

SHASTA watches the passing of 2nd #643

MOUNT SHASTA is the backdrop for a westbound Shasta Route freight on July 10, 1949. Providing the power is a war baby — AC-11 4271, Baldwin class of '42.

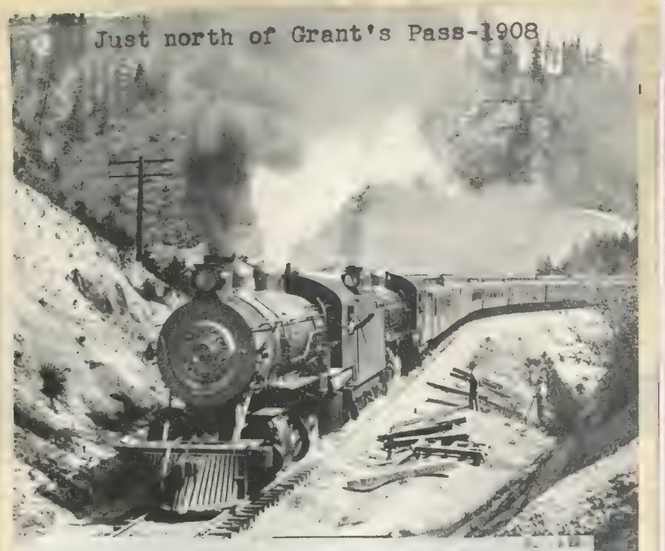


Wolf Creek Loop. In the construction of a railway in mountainous regions engineers are occasionally confronted with the serious problem of overcoming unusual elevations within very restricted boundaries. The "Loop" is usually the solution. At the point shown, the tracks make a complete curve to gain the grade required on the other side of the mountain.

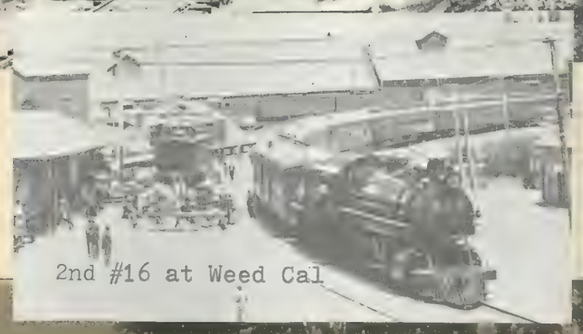


This little depot was located on the Siskiyou Line not far from the famous "Cantara Loop". It looks more like a ticket booth in an amusement park than a station on the mighty Southern Pacific.

Clos. No.



Just north of Grant's Pass-1908



2nd #16 at Weed Cal

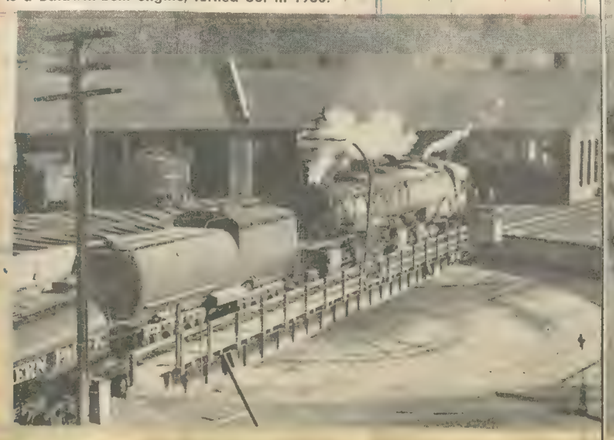
In the mountainous region of southern Oregon on the old orginal main line, the SHASTA has finished her climb to the summit at Siskiyou elevation 4,125 feet.

Mount Shasta on the "Shasta Route," one of California's scenic marvels, which is constantly attracting tourists from the East.

Shasta Limited

The Shasta Limited at Shasta Springs, California

A Shasta Division AC-6, No. 4140, rides the table at the Dunsmuir roundhouse. Espee is the only road in the world that operates its articulateds like this, with the tank behind and the cab up front. Like all AC's, No. 4140 is a Baldwin-built engine, turned out in 1930.



Heavy Tonnage Train controlled by Air Brakes on Siskiyou Mountain.
(Courtesy of Southern Pacific Ry.)

CKM

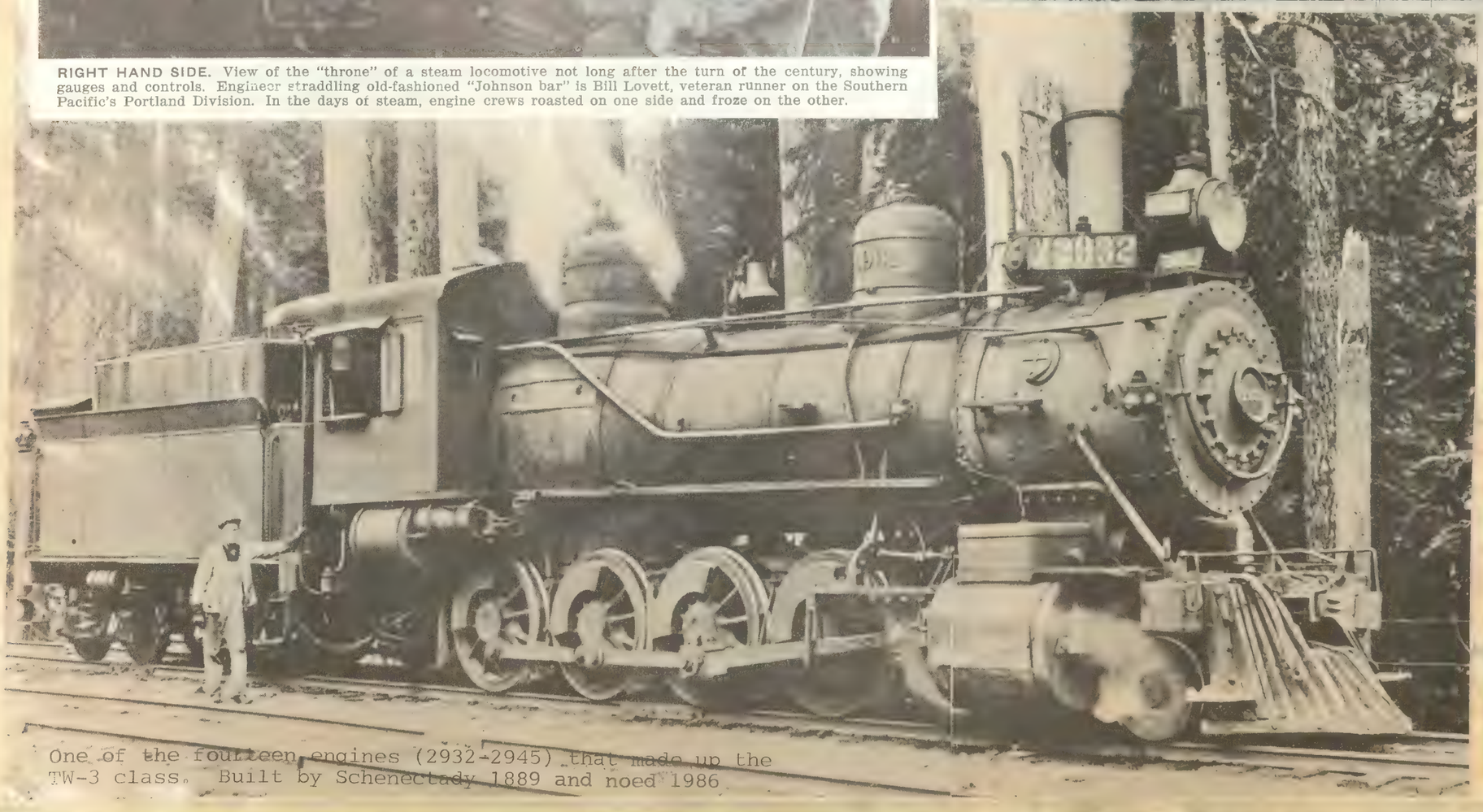
On August 18, 1915 Ten Wheeler 2274 (2274-2281 Cooke 1901) rolls Train 19 south of Portland tword its destination of Cottage Grove

Heading South from Portland, Oregon, Train No. 17 with a Heavy Atlantic Type on the Head End Paused at Willsburg Junction During 1921 for a Clear Board.

Clos. No.	Sold		Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

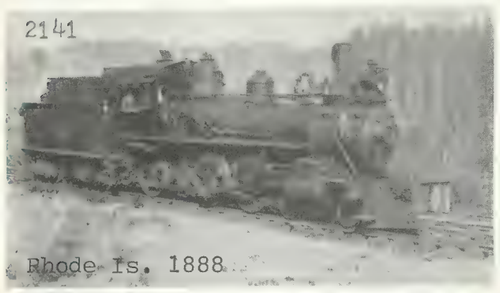
On another day #19 loafs along behind 4-6-0 2255 Class T-1, orginal No 1841, Cooke 1897

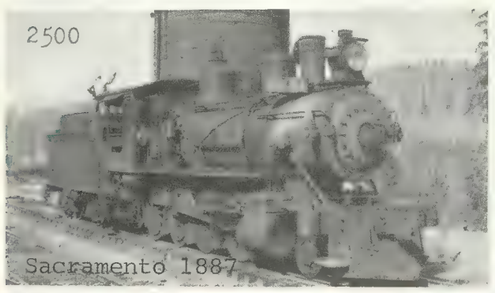
RIGHT HAND SIDE. View of the "throne" of a steam locomotive not long after the turn of the century, showing gauges and controls. Engineer straddling old-fashioned "Johnson bar" is Bill Lovett, veteran runner on the Southern Pacific's Portland Division. In the days of steam, engine crews roasted on one side and froze on the other.



One of the fourteen engines (2932-2945) that made up the TW-3 class. Built by Schenectady 1889 and noed 1986

Southern Pacific stages a meet in Oregon City, just 16 miles out of Portland, as white-faced and three-cylindered 4-10-2 No. 5001 brings westbound No. 665 through town. On the siding sits sister No. 5024 with a Portland-bound extra, waiting until No. 665 clears the switch.

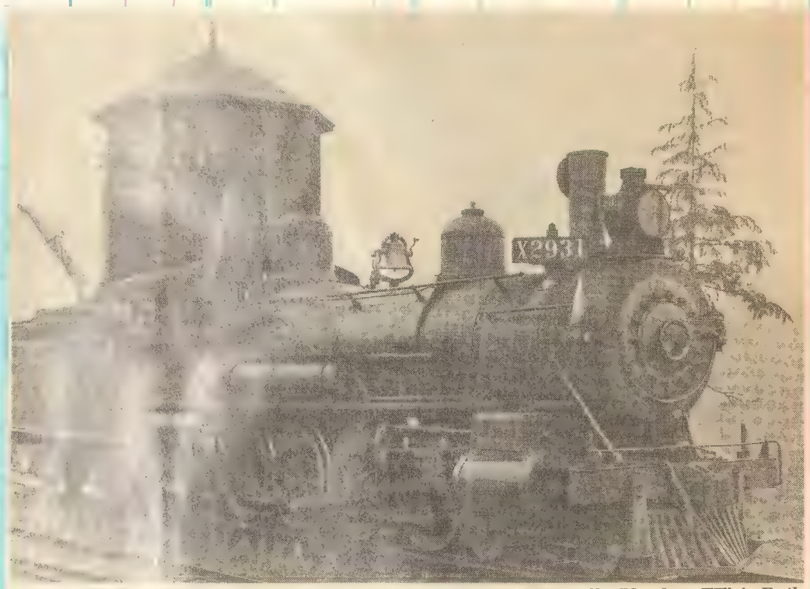




MOUNTAIN RAILROADING in the Pacific Northwest called for much engineering ingenuity. Track shown here leaving tunnel crosses high combination trestle and truss bridge in the foreground on a sharp curve and steep grade, a portion of the Wolf Creek "loop" on the Pacific Railway & Navigation Co. Engine crews coming down-grade through tunnel fervently hoped that the fires which frequently raged through the timber had not destroyed this structure; the drop to the brawling waters of Wolf Creek was a long one!

Roundhouse in wintry valley is at town aptly-named Timber, division point west of Portland on small Southern Pacific branch line which is the only railroad serving coast center of Tillamook, 62 miles farther west

No. 143, the Portland-Tillamook passenger, pulled by 2500 and 2200 near Timber in 1914



SP No. 2931, formerly numbers 2831, 1984, and originally 78, class TW-4. Built by Cooke in 1882, she was scrapped in 1950. She is down at the old water tower at Timber, Oregon, about 1915. Later she was taken to the Portland Shops where she was rebuilt and modernized. No. 2931 made many picnic train runs in 1920's.

In the Pacific Northwest lumbering was the major industry for decades and this scene was repeated hundreds of times each day as laboring engines brought the timber out of the woods. Here the 2940 (4-8-0) lends a helping hand to the 2138 (4-6-0) in moving yet again another train of logs along the Tillamook branch c 1915

No. 2931 with wedge plow on siding at Mayo, Ore., 12 miles west of Timber, clearing snow for train 238, about 1914.

A lonely engine by a lonely water tank on a lonely piece of track in lonely country

86

Train 17—OREGONIAN.

Standard Sleepers—
★Portland to San Francisco (Sections, Drawing-rooms).
★Seattle to San Francisco (Sections, Drawing-rooms, Compartments).

Standard Sleeper—
★Seattle to Los Angeles (leaves Oakland Pier No. 74-76, 8 15 p.m., arrives Los Angeles 9 00 a.m.). (Sections, Drawing-room, Compartments).

Observation Lounge Car—
★Portland to San Francisco (shower baths, ladies' lounge, Radio)

Tourist Sleepers—
★Portland to San Francisco.

Dining Car—
★Complete luncheons and dinners 90c. to $1.50; breakfasts 50c. to $1.00; also a la carte service.

Reclining Chair Car (Free Pillows, day or night)— 1939
★Portland to San Francisco.

Tickets Honored—
First-class tickets when presented with proper Pullman tickets.

Tourist Sleeper and Coaches—All classes.

Back in time when the Official Guide contained 1600 pages and the standard sleeper still was the finest in first class travel, The OREGONIAN was one of the excellent trains operated by the Espee between Portland and the Bay Area. Here she glides along south of Klamath Falls on a beautiful summer morning.

LOW FARES

And remember, trains travel over the smoothest, **safest** highway in the world! Low cost dining car meals, 10c and 15c Tray Food Service and bargain rail fares are other reasons why so many people **try the train.** Here are typical examples of round trip fares, good in roomy, air-conditioned coaches and chair cars.

Round Trip between Portland and San Francisco:

$22.50

Round Trip between Portland and Los Angeles:

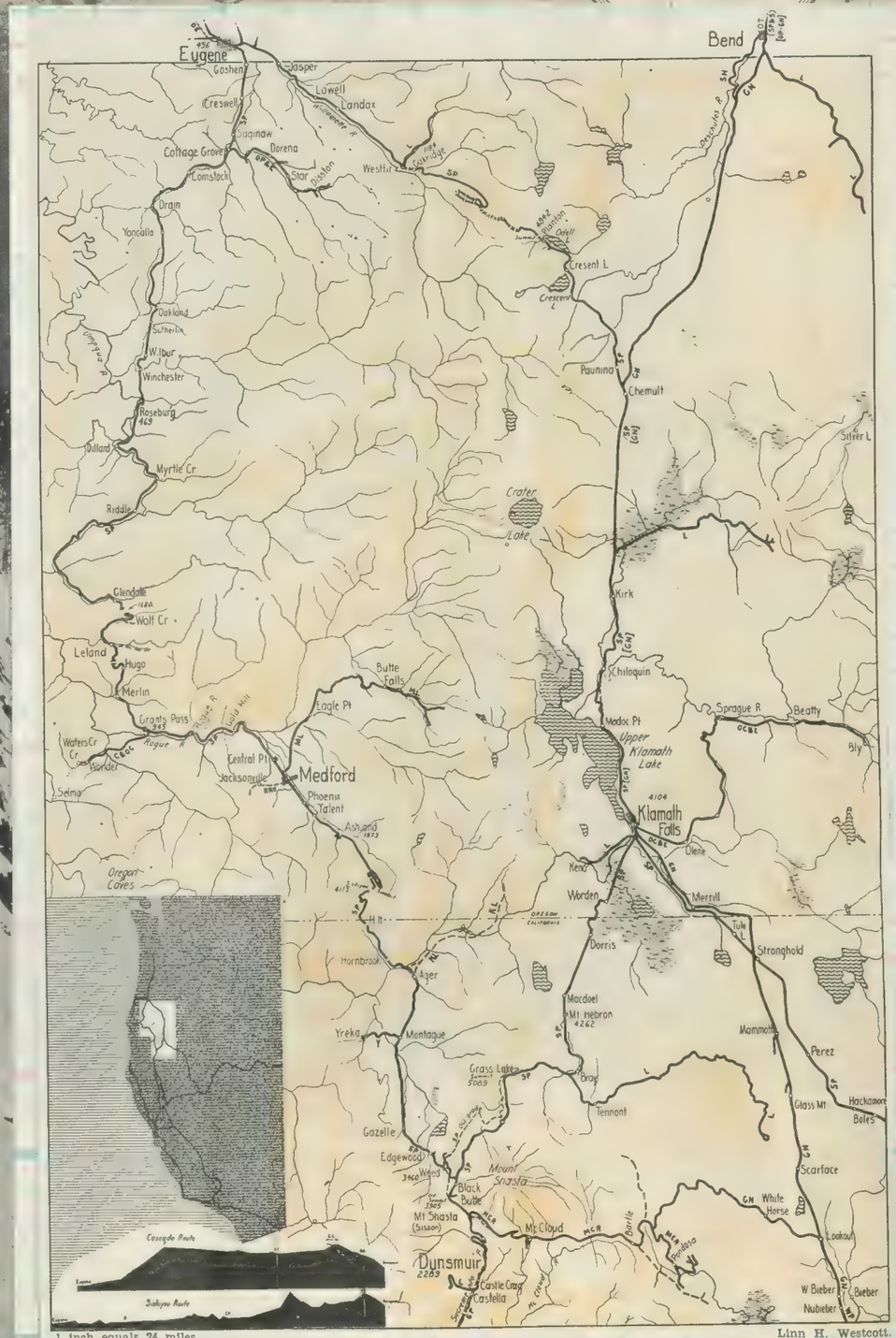
$34.10

☆

Snow Plow In Cascade Mts.

A Southern Pacific Rotary Snow Plow Near Cascade Summit, Oregon

Salt Creek Canyon



1 inch equals 24 miles.

Linn H. Westcott.

Supvr MofW Eugene

I need twenty men ten foot tall to work
in snow thirty foot deep.

Section Boss
Cascade

A rotary plow, bolstered by a huge Mallet engine, rumbles through a pass near Fields, Ore. All Cascade Range snow-fighting equipment is fitted with radio.

The bore thru Hackletooth Mtn--Cascade line

Courtesy Southern Pa

88

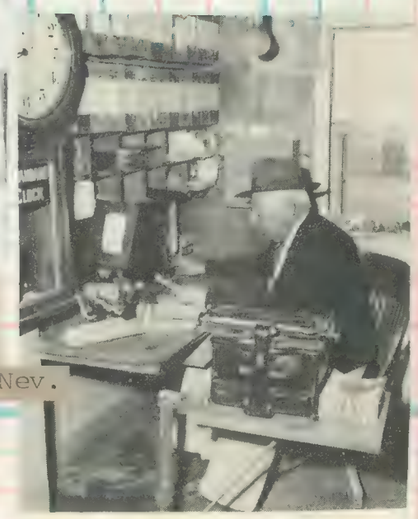
SLIM PRINCESS

Between Death Valley, lowest point in America, and Mount Whitney, highest peak in continental United States, is the little-known three-foot-gauge line of Southern Pacific, 101 miles of narrow track through wildly desolate country in the very shadow of the eastern Sierra Nevada escarpment. To the south the narrow-gauge connects via standard-gauge track with Mojave and Los Angeles; to the north it formerly ran through to Tonopah Junction and thence via standard-gauge to the main Overland Route east of Reno. For the venturesome passenger this was an out-of-the-ordinary alternate route from the East to Southern California, but in recent years lack of traffic caused abandonment of the northern end of the narrow-gauge and the southern end is used for freight only. Ten-Wheeler No. 22, shown above on a freight train near Keeler, Calif., looks typically Southern Pacific, but it is a locomotive with a surprising pedigree. It was first Florence & Cripple Creek 22, later Nevada-California-Oregon 22. By F. J. Peterson.

Like a true boomer, the 22 had a long and colorful career. Built at a cost of $11,250 by Schenectady in Jan 1900, c/n 5399, for the Florence & Cripple Creek as the "Vindicator" #22. In 1915 was sold to the N.C.O. as their #22. Went to the S.P., with the same number in 1922. Retired 1949

The abandoned portion of the Southern Pacific's narrow-gauge line up over Montgomery Pass, Nev., topped the summit at this station, some 7122 feet above the sea. The old order board will hold no more trains.

With a winter storm brewing, #8 hurries along near Laws Constructed in 1907 by Baldwin (c/n 31445) for the N.C.O. as #8. Went to the S.P.,#8, in 1928. Reblt at Sparks in 1930 and now on static display in Railroad Park, Sparks, Nev.



At Owenyo, William Tommer telegraphs his morning report on freight traffic to Bakersfield

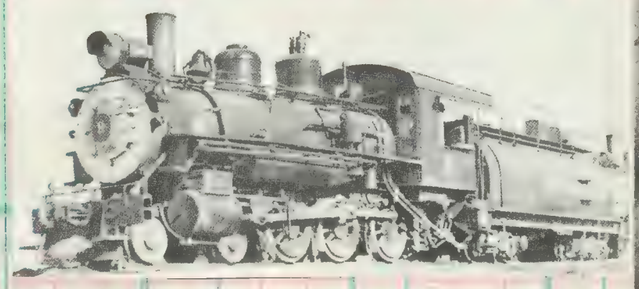
Now this is a sight to gladden the heart and lift the soul! With the Sierra Nevadas as a background No 9 sings along haughtily with her master as intent as tho he was pulling the latch on the "Daylight"

With countless campaigns behind her, this battle scarred old veteran stands ready to sign the retirement rolls. Built by Baldwin in 1909 as Nevada-California-Oregon #9 (c/n34035) To the SP in 1928 with same number, was reblt at Sparks in March 1930. Now on static display at Laws.

No. 9 heads for Keeler with a train of empties, rolling over the 36-inch span of rails which are the trademark of "Slim Princess"

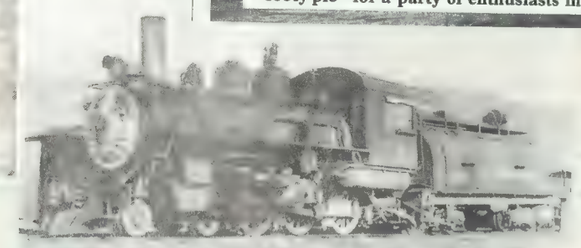
TIMBERS of the trestle across the deep Owens River absorb the weight of No. 9, under way with a load of ore concentrate.

At Owenyo, talc is transferred from narrow gauge car (right) to standard, which holds contents of three narrow gauge cars



Arriving at Laws

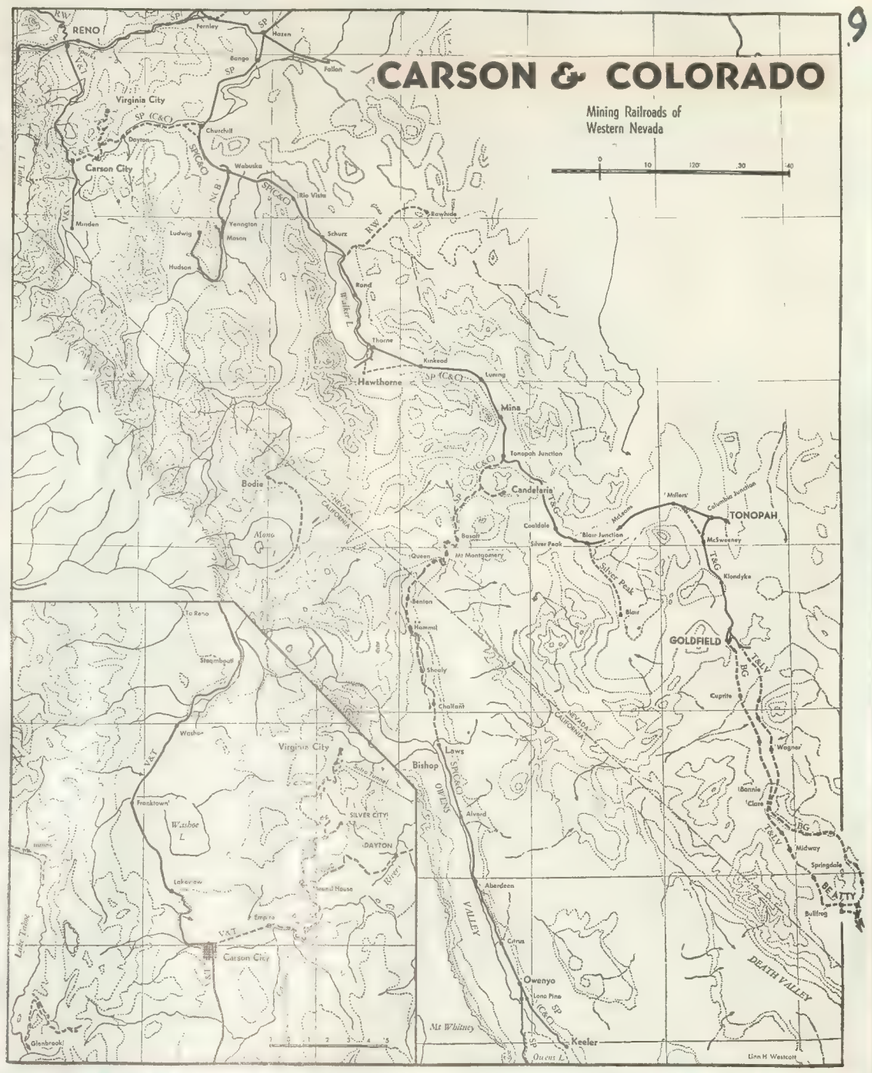
Crossing the southerly of the Owens River bridges in that California valley, Southern Pacific three-foot-gauge No. 18 produces "sooty pie" for a party of enthusiasts in February 1952. —*FRED MATTHEWS*

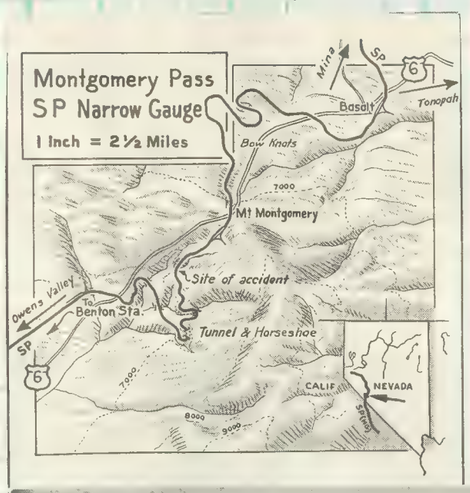


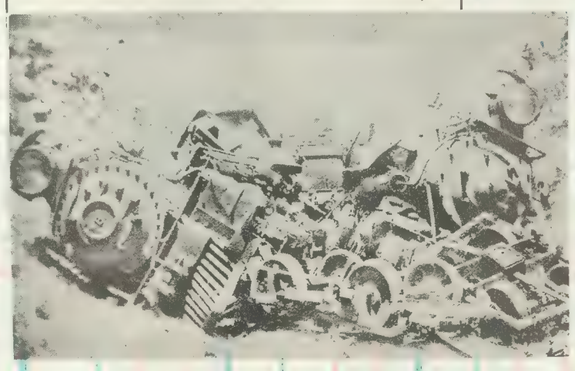
In 1911 Baldwin built this 4-6-0 for the Nevada-California-Oregon as their #12 (c/n 37395) To SP in 1928 and renoed 18. Cyls 16x20, dvs 44" and T E 17,800#. On static display at Independence.

Clas. No. | Sold | Amount | Cl | So

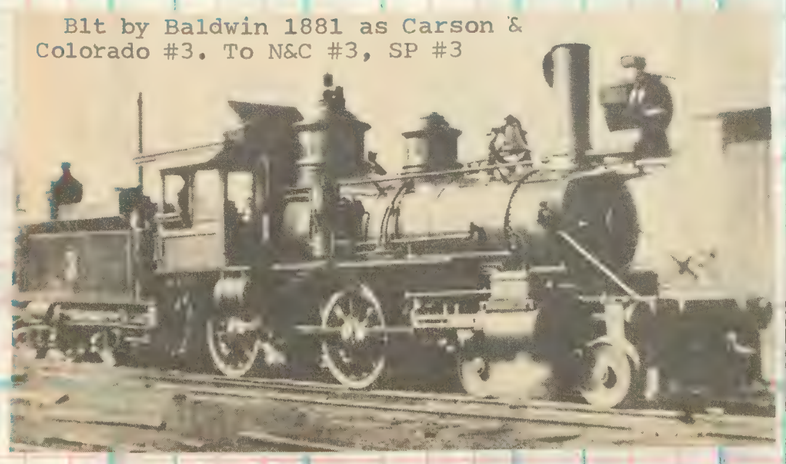
Leaving Mina (1938)







Blt by Baldwin 1881 as Carson & Colorado #3. To N&C #3, SP #3



C&C #3 "Colorado" Baldwin 1881 c/n 5430 to N&C #3

at Inyo Develoment Co Keeler

Photographed Dec. 23, 1936, by Gerald M. Best, 511 N. Sierra Drive, Beverly Hills, Calif.

TRIPLE-HEADER, Nos. 18, 14 and 8, hauling 22 cars of sheep up Mt. Montgomery, 4 percent grade, near Mina, Nevada, on a section of Southern Pacific narrow-gage

Blt Sacramento Shops 1879

92

SELLER
DATE
FORM | DESTINATION | A

. No. | Sold | Amount | Clos.No. | Sold | Am

San Diego & Arizona Eastern Ry. Co.
"San Diego Short Line"

A pair of Ten wheelers (2343-2357) rolls tonnage into Dos Cabezas

THE
SHORTEST LINE
TO SAN DIEGO
Via Carriso Gorge and Agua Caliente
Through Air-Conditioned Pullmans
from Chicago and New Orleans

Carriso Gorge

So tough is the terrain through the gorge, shown in all photos, that it was the last part of the San Diego & Arizona Eastern to be finished. Construction of the road was originally undertaken in 1907, and portions of the line to both the east and west of the gorge were in actual operation before the final stretch was completed in 1919. West of the gorge are the horseshoe curves at Redondo and the 180-foot-high steel viaduct at Campo.

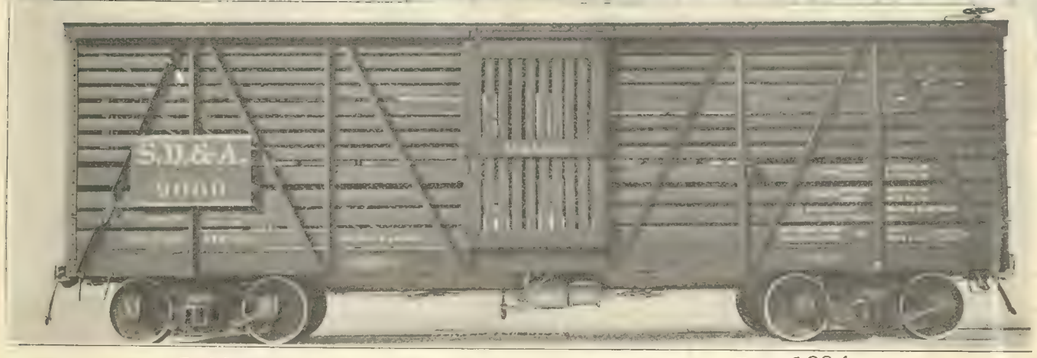
Tourists cling to the open platform of the observation in this old photo of an SD&AE passenger train drifting down into Carriso Gorge on the ledge that lowers the railroad through a long series of 20-degree curves.

San Diego and Arizona Train 4, with Engine 24 in the Carriso Gorge, between San Diego and El Centro in Imperial Valley, California.

The gorge is 100 miles east of San Diego, after the railroad has dipped below the Mexican border for 48 miles and climbed 3660 feet to cross a summit on maximum grades of 1.4 per cent eastbound and 2.2 per cent westbound. For 11 miles the track winds through 17 tunnels and around curves as sharp as 20 degrees while the passenger delights in brilliant rock coloring much the same as in Grand Canyon. The right of way is a shelf carved into the rock walls of the canyon.

Railway Age
Vol. 67. December 19, 1919 No. 25

...the Inauguration of Service on the San Diego & Arizona. Photo from Western Newspaper Union



Pullman 40-Ton Capacity Steel Underframe Stock Car. Jan 1924

Ten wheeler #27 was built by Baldwin in 1907 as Las Vegas & Tonopah #11. (c/n 32360) Sold to the SD&AE in 1917

INTER-CALIFORNIA RAILWAY COMPANY—LINE IN MEXICO.
GENERAL OFFICE—MEXICALI, B.C. MEXICO
Post Office Address: Apartado 44, Mexicali, B.C. Mex. and
P. O. Box 1169, Calexico, Cal.
E. G. BURDICK, General Manager, Mexicali, B.C., Mex.
E. B. SLOAN, Fiscal Representative, Ave. Cinco de Mayo No. 7, Mexico, D.F.
EMILIO GONZALEZ, Counsel, Mexicali, B.C., Mex.

	362	358	Mls	April 24, 1932.	363	357
	P M	●A M		LVE. (Pacific time.) ARR.	A M	●P M
	*1 00	*8 15	0	Calexico, Cal. ✈	2 57	4 05
	11 05			Mexicali, Mex.		1 00
			4.6	Packard, Mex.		2 45
				Cocopah, Mex.		2 55
	9 30	23.0		Hechicera, Mex.		2 50
	10 05	37.3		Paredones, Mex.		2 15
	10 42	51.9		Algodones, Mex.		1 40
	10 54	52.0		Cantu, Cal. ✈	2 37	1 55
	11 04	52.6	arr.	Araz Junc., Cal. ✈ lve.	*2 30	*1 20
	11 20	61.8	arr.	Yuma (S. P.) lve.	*2 15	*1 00

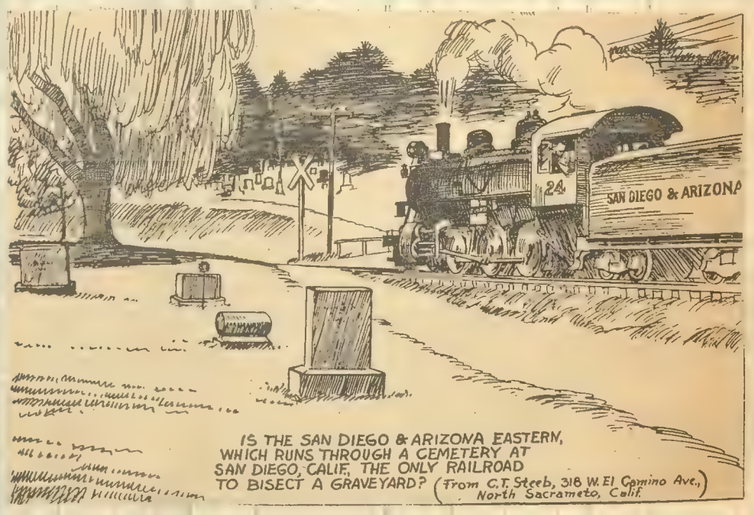
● Mixed train. * Daily. † Telegraph stations.

Connection.—At Calexico—With Southern Pacific Lines.

Inter-California Trn #358, powered by Mogul 1767, at Mexicali,B.C.,Mex.

An SD&AE passenger train drifts across the high steel trestle east of Campo, Calif., after climbing out of the Imperial Valley. This bridge is one reason why it cost many millions to build the short line to the east.

The 17 tunnels in Carriso Gorge range from 180 feet to 2650 feet in length, totaling 13,392 feet. Because of the loose rock formation they are timber-lined.


24
SAN DIEGO & ARIZONA
IS THE SAN DIEGO & ARIZONA EASTERN, WHICH RUNS THROUGH A CEMETERY AT SAN DIEGO, CALIF. THE ONLY RAILROAD TO BISECT A GRAVEYARD? (From C.T. Steeb, 318 W. El Camino Ave., North Sacramento, Calif.

T&NO

SUNSET LIMITED
NEW ORLEANS-LOS ANGELES

Sunset Route

SAN FRANCISCO, LOS ANGELES, SAN DIEGO, SOUTHERN ARIZONA,
EL PASO, NEW ORLEANS

The "Sunset Limited" en route between New Orleans and Houston, Southern Pacific System

SOMEWHERE IN WEST TEXAS: A Southern Pacific publicity photo from the collection of Albert M. Rich depicts train 102, the eastbound Sunset Limited, behind P-9 Pacific 622 of Texas & New Orleans, SP's subsidiary in Texas and Louisiana whose power was numbered below 1000.

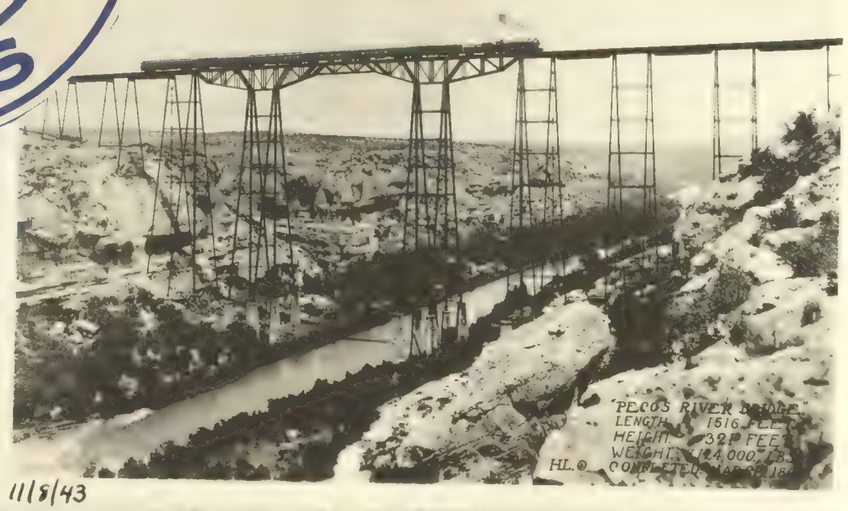
622-630 Baldwin 1923
c/n 56319

SUNSET CENTRAL LINES
SUNSET ROUTE

THE RAILS OF THE PECOS HIGH BRIDGE ON THE SOUTHERN PACIFIC RAILWAY, 219 MILES WEST OF SAN ANTONIO, ARE 321 FEET ABOVE WATER LINE; THE CANTILEVER SPAN IS 185 FEET IN LENGTH.

Photograph by Brack.

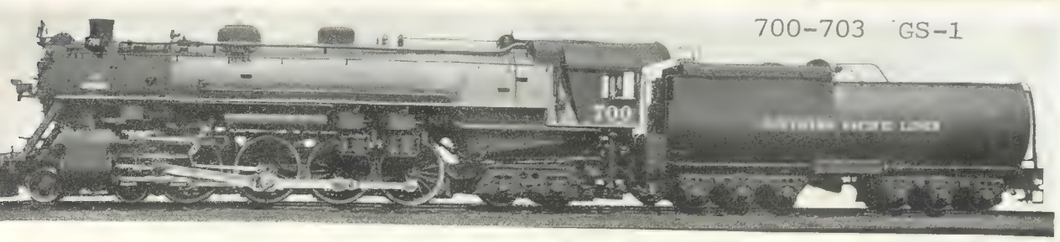
DATE



11/5/43

B. APPROACHING PAISANO PASS THROUGH DAVIS MOUNTAINS, BETWEEN ALPINE AND MARFA, TEX.
Looking east.

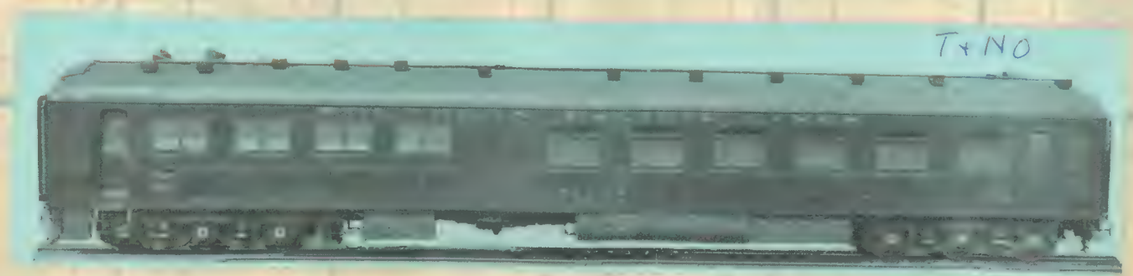
700-703 GS-1



One of Fourteen 4-8-4 Type Passenger Locomotives, Built for the Southern Pacific Lines by The Baldwin Locomotive Works in 1930

linders	27″ x 30″	Superheating surface	2,565 sq. ft.	Tractive force	62,200 lb.
eam pressure	250 lb.	Grate area	90.4 sq. ft.	Tractive force of booster	13,710 lb.
ivers, diam.	73½″	Weight on drivers	262,000 lb.	Tank capacity, water	16,152 U. S. gal.
ating surface	4,856 sq. ft.	Weight, total engine	442,300 lb.	Tank capacity, oil fuel	4,692 U. S. gal.

T+NO



Cles. No. | Sold | Amount

Amount

The last, and heaviest, Pacific type for the Espee. Wt 313,800#. Three, 631-633, were delivered by Baldwin in 1928. Equipt with 160-C class tenders that carried 16,152 gals of water and 4,912 gals of oil.

Waiting for the air to build up

147-156
LIMA 1924
c/n 6763

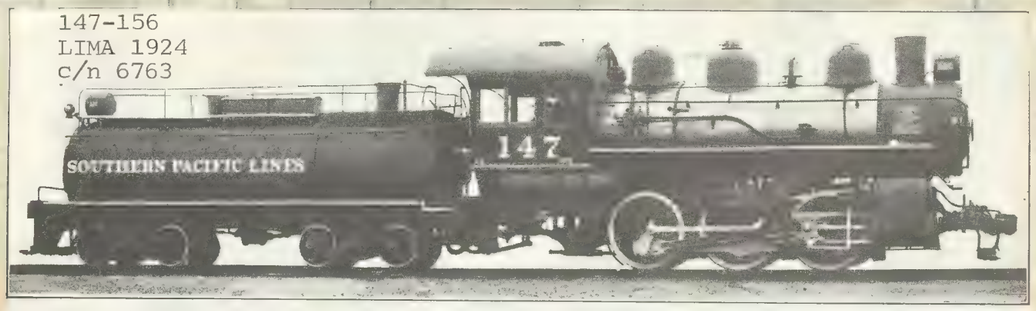


Fig. 8—Southern Pacific 0-6-0 (Six-Wheel) Switching Locomotive. Built by the Lima Locomotive Works, Inc.

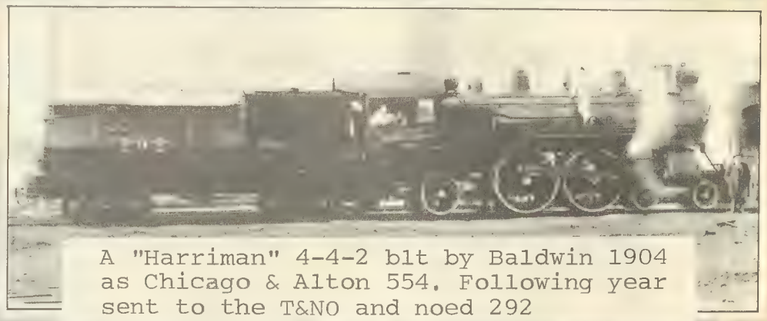
Cylinders, diameter and stroke	20 in. x 26 in.	Fuel	Oil
Tractive force	30,750 lb.	Grate area	30.2 sq. ft.
Cylinder horsepower (Cole)	1,442 hp.	Steam pressure	200 lb.
Drivers, diameter	57½ in.	Evaporative heating surface	1,273 sq. ft.
Weight on drivers	155,000 lb.	Superheating surface	281 sq. ft.
Driving wheel base	11 ft 0 in.	Tender capacity	5,200 gal. water, 1,508 gal. oil

137-146 Baldwin 1920-21
c/n 54219

Fig. 7—Six-Wheel (0-6-0) Oil-Burning Locomotive for Switching Service. Built for the Southern Pacific by the Baldwin Locomotive Works. 1920

Gage	4 ft. 8½ in.	Heating Surface, Firebox	144 sq. ft.
Cylinders	20 in. x 26 in.	Heating Surface, Tubes	1,132 sq. ft.
Steam Pressure	200 lbs.	Heating Surface, Superheater	278 sq. ft.
Diameter of Drivers	57½ in.	Grate, Area	30.2 sq. ft.
Tractive Effort	31,020 lbs.	Weight on Drivers	155,200 lbs.
Driving Wheel Base	11 ft. 0 in.	Total Weight of Engine	155,200 lbs.
Rigid Wheel Base	11 ft. 0 in.	Total Weight of Engine and Tender	259,000 lbs.
Engine Wheel Base	11 ft. 0 in.	Tank Capacity Water	5,000 U. S. gals.
Total Wheel Base, Engine and Tender	48 ft. 6 in.	Tank Capacity, Oil	1,500 U. S. gals.
Tubes, Length	11 ft. 6 in.	Fuel	Oil

#600, org #900 P-5 BLW 1912



A "Harriman" 4-4-2 blt by Baldwin 1904 as Chicago & Alton 554. Following year sent to the T&NO and noed 292

Among the largest engines to operate in Texas were Espee's GS-1 4-8-4's. No. 709 rolls out 19 cars of No. 6.
departs San Antonio

The Houston-bound Sunbeam pauses in the division-junction town of Ennis, Tex., on a winter afternoon. Power for the streamliner is P-14 Pacific No. 651, originally Pacific Lines No. 2456 outshopped in 1913.

Philip H. Leroy.

TURN BACK the clock, to the late 1940's, to the single-track iron of Espee's Texas & New Orleans between Dallas and Houston. The southbound Hustler is missing her usual streamlined Pacific but none of her customary gait as 4-6-2 614 cuts between Harriman-era semaphores with No. 16. In the afternoon, the same consist of Daylight-type equipment will make the journey back to Dallas as the Sunbeam schedule.

R. S. Plummer

The Sunbeams

(2 trains)

Weight of train:	694,000 lb. (cars only)
Consist:	7 cars—1 baggage; 1 baggage-mail; 4 parlor; 1 diner-lounge-observation.
Placed in service:	September 19, 1937
Operated between:	Houston and Dallas, Texas (1 train daily in each direction)
Daily mileage per train:	264
Overall scheduled speed:	60 m.p.h.

Clos. No. Sold Amount

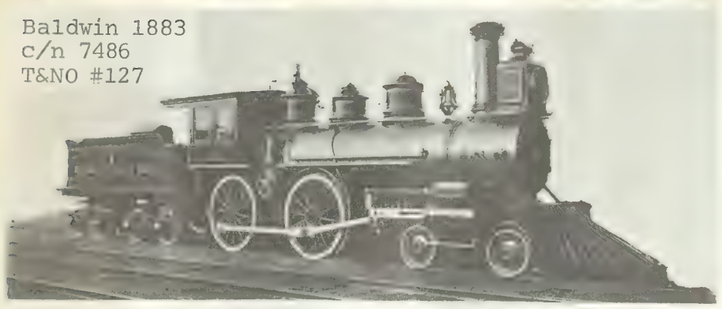
50-Ton Single Sheathed Automobile Car Built by The Standard Steel Car Co. Oct 1925

500-514
Baldwin 1912
c/n 37898
Renoed 687, 462

97

Fig. 27—Mogul (2-6-0) Locomotive for Freight Service. Built for the Southern Pacific by the Baldwin Locomotive Works. Cylinders, 21 in. x 28 in. Steam Pressure, 200 lbs. Dia. Drivers, 63 in. Tractive Effort, 33,300 lbs. Heat. Sur.—Tubes, 1,734 sq. ft.; Firebox, 151 sq. ft.; Total, 1,885 sq. ft.; Superheater Surface, 417 sq. ft. Grate Area, 49.5 sq. ft. Wheel Base—Driving, 15 ft. 2 in.; Total 24 ft. Weight on Drivers, 151,050 lbs. Total Weight of Engine, 179,750 lbs. Fuel, Oil.

Baldwin 1883
c/n 7486
T&NO #127



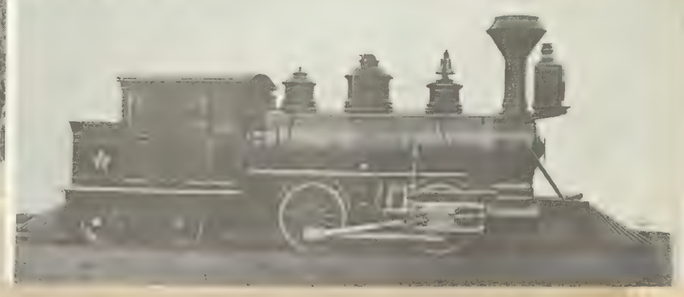
Morgan's Louisiana & Texas #47, 1884, 4-4-0 type.

The 260 blt as Texas Midland #99 by Schen in 1897 [c/n 4598] To T&NO 2nd #260 in 1928 Retired 1936

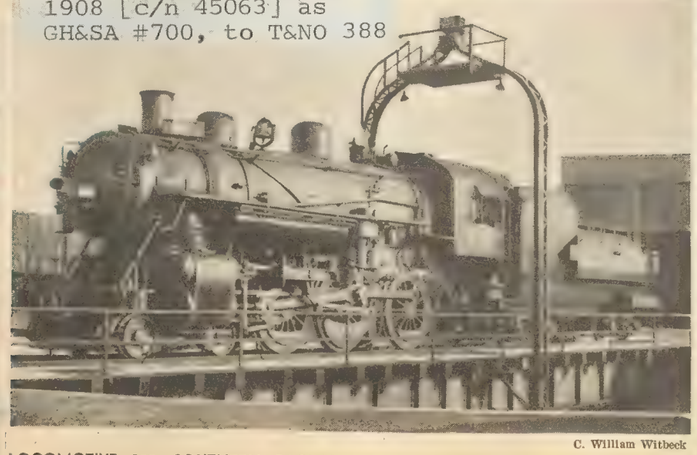
GONZALES AND HARWOOD.

218	216	Mls	November 19, 1933.	217	219
Mix.	Mix.			Mix.	Mix.
P M	P M		LEAVE	ARRIVE	P M	P M
*4 30	1 20	0	Gonzales	2 00	6 10
4 45	1 35	1.6	Kokernot	1 30	5 40
5 00	12 50	2.5	Harwood	†1 10	*5 20
P M	P M		ARRIVE	LEAVE	P M	P M

N L & T #27 Baldwin 1879



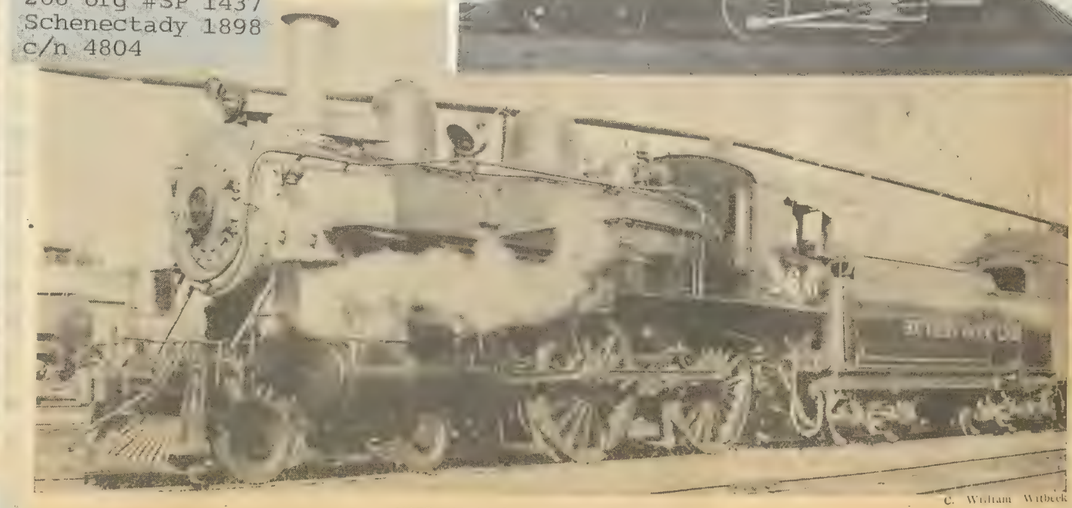
The 388 blt by Brooks 1908 [c/n 45063] as GH&SA #700, to T&NO 388



C. William Witbeck

LOCOMOTIVE 388, SOUTHERN PACIFIC, PHOTOGRAPHED AT SHREVEPORT, LA., IN 1933

266 org #SP 1437
Schenectady 1898
c/n 4804

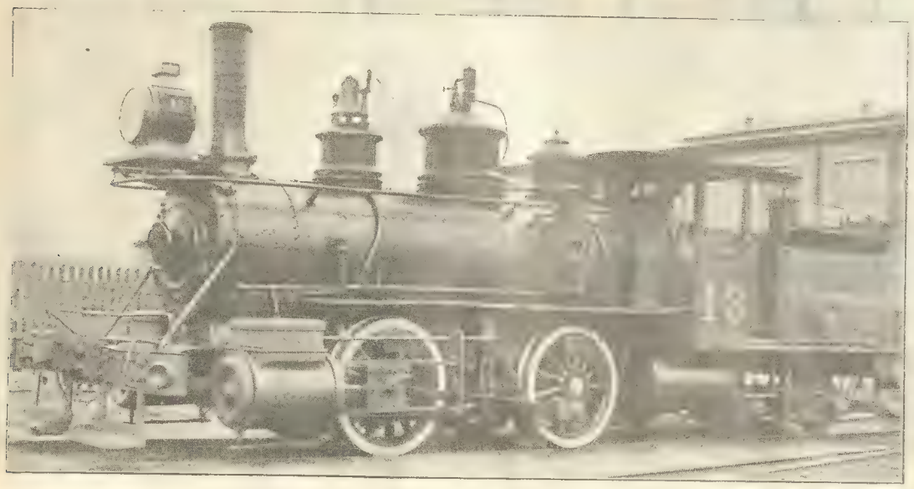


C. William Witbeck

USED IN LOCAL PASSENGER SERVICE

Locomotive 266 of the Southern Pacific, photographed at Shreveport, La., runs between Shreveport and Lufkin, Tex.

Wallace Stevens, who taught Harold Vollrath how to telegraph, hands up "19" train order to Southern Pacific train No. 6, *The Argonaut*, running past Franklin, La., in 1941.



Baldwin 1879 c/n 4813

VERY Baldwin locomotive is built to give full and complete service to its owners.

is therefore no surprise to us to be in eipt of letters and photographs of Baldwin ines built many years ago and which are in operation.

illustration shows a Forney type, built by n 1879 for Morgan's Louisiana and Texas road, which is today in excellent condition and giving good service at Algiers, Louisiana, after forty-two years of continuous operation.

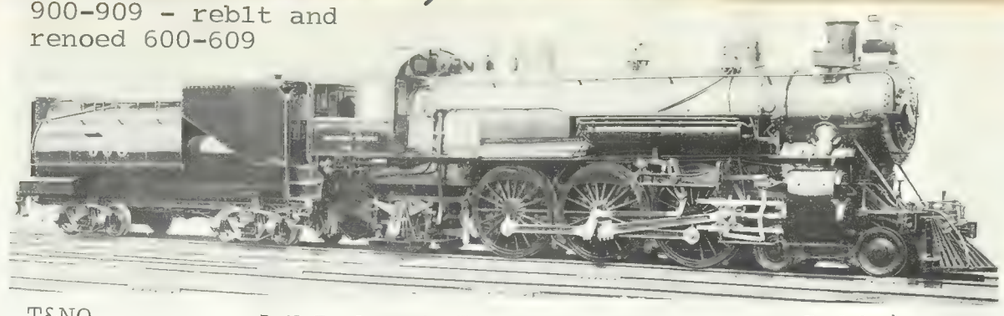
It has 17 x 24-inch cylinders and 49-inch driving wheels. The weight on drivers is 56,000 pounds and the total weight of engine is 70,000 pounds. Originally this locomotive was built to push freight cars up a very steep incline on the banks of the Mississippi and then haul the same cars over the road. Today it is being employed for miscellaneous work.

Ed Gebhardt.

SLOSHING through floodwaters of the Mississippi River in 1927, Texas & New Orleans (Southern Pacific in Texas and Louisiana) 0-6-0 No. 67 left T&NO's trainferry Carrier at New Orleans, La. With building of Huey Long Bridge in 1935, Carrier was discarded.

0-6-0 on water skis?

900-909 - rebit and renoed 600-609



T&NO

Pacific Type Locomotive, Class P-5, Southern Pacific Co. Built 1912

Baldwin

Cylinders	22″ x 28″	Tubes, number	5⅜″, 24; 2″, 173	Wheel base, driving	13′ 4″	Weight, total engine	221,100 lb.
Drivers, diam.	77″	" length	20′ 0″	" " total engine	33′ 4″	" " " and	
Boiler, diam.	70″	Grate area	49.5 sq. ft.	" " " " and		tender	382,000 lb.
Steam pressure	200 lb.	Water heating surface	2,658 sq. ft.	tender	68′ 6¼″	Tank capacity, water	9,000 U. S. gal.
Firebox	108″ x 66″	Superheating surface	580 sq. ft.	Weight on drivers	141,500 lb.	" " oil	2,940 " "
Tubes, diam.	5⅜″ & 2″					Tractive force	30,000 lb

William Tierne

LOUISIANA'S 1895 SNOWSTORM HALTS SWITCH ENGINE

Shown beside Switch Engine 647 snowbound at St. Charles, La., by 22-inches of snow Feb uary 14, 1895, are: (left to right) Billy DeWire, section foreman; two men, names unknown W. D. Durbridge, switchman; P. J. Mathieu, fireman; A. Gilley, switchman; B. G. Moore

Southern Pacific

Oil Trains Jam Southern Pacific Railway Terminals at Beaumont, Near the Texas Coast

Report on Collision at Adeline, Louisiana

THE Interstate Commerce Commission has issued a report, dated November 29 and signed by W. P. Borland, chief of the Bureau of Safety, on a collision which occurred on the Southern Pacific Lines at Adeline, La., on October 31 last, when three passengers were killed and 17 were injured. These passengers were employees of a circus. The damage to cars and engines amounted to $18,549. The circus train, moving westward, about 3:15 A. M., was run into by a following passenger train, No. 109. The rear car of the circus train was crushed, telescoping the car ahead of it, and the third car from the rear also was telescoped by the fourth car, for a distance of about 22 ft. Train 109 was not derailed and was not much damaged.

Adeline is 109 miles west of New Orleans. The line is double-track but no block signal system was in use.

The circus train was running as the first section of freight train No. 241 and consisted of 25 freight cars and 10 sleeping cars, besides a car at the rear, a chair car, used as a caboose. The eleven passenger cars were all wooden. Because of a shortage of trainmen at the eastern terminus of the line, Algiers, La., all of the brakemen on the circus train were inexperienced in road service. At Baldwin, four miles east of Adeline, the engineman of the circus train prepared to back his train off on the eastbound track to clear the way for the passenger train; but receiving no response to his back-up signal and receiving instead repeated proceed signals, he continued toward Adeline. He did not recall the flagman, for he knew that No. 109 was nearly due and supposed the flagman would remain out to stop that train. The flagman, however, came in, leaving a fusee, but no torpedoes. The reasons advanced by Conductor Adams of the circus train for leaving Baldwin only one minute ahead of the scheduled time of No. 109 were that he could see back two or three miles and the passenger train was not in sight; that that train was probably a little late and that he could go to Jeanerette, five miles beyond Adeline, being able to run as fast as No. 109. When the engineman slackened his speed at Adeline (to back off), Conductor Adams, finding that the flagman had not thrown off fusees, told him to hurry back; but it was then too late to do any good. It was then foggy at Adeline, although there had been no fog at Baldwin when the train was there. The flagman had no time table and no standard watch.

The inspector holds Conductor Adams primarily responsible for the collision, declaring that he was grossly careless. At Baldwin, he deliberately disregarded the requirement of the rule to keep five minutes clear of superior trains. The report quotes the testimony of all concerned at considerable length, but there are numerous discrepancies which it does not attempt to clear up. The conductor evidently approved the disregard of rule 99 by the flagman. The flagman apparently knew the flagging rules, yet he neglected to throw off fusees.

Circus trains, usually composed of wooden passenger cars, require special care and, lacking a crew of the necessary experience, a trainmaster or other competent operating officer should have been assigned to the train, says the inspector. From Baldwin, the engineman of No. 109, although he stopped and waited for the fusee to burn out, felt warranted in assuming that the road was clear; for another westbound freight was standing on the eastbound track and he naturally assumed that the fusee had been placed by the flagman of that train. The report calls attention to the need of the block system on this line.

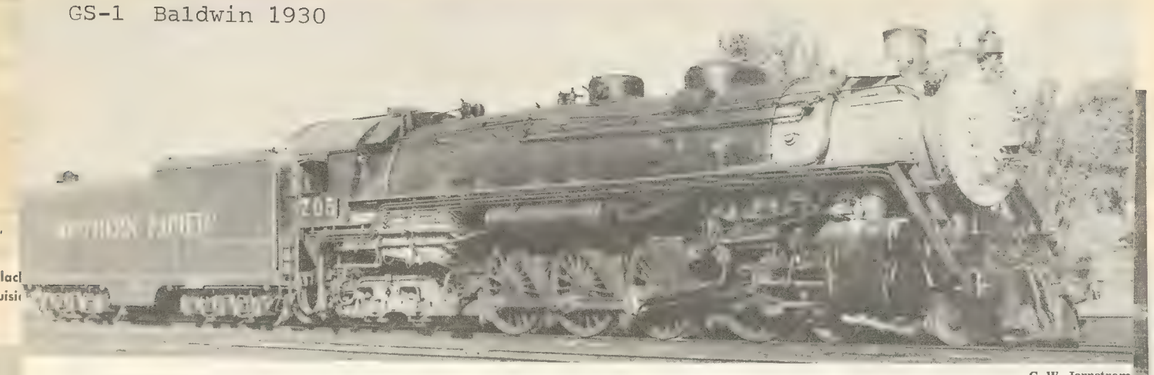
Collision at Adeline, Louisiana, October 31, 1922; Three Killed, 17 Injured

Clos. No.

ex SA&AP #245
Lima 1913
c/n 1284

THIS photo of a Southern Pacific (T&NO) local freight crossing the Intracoastal Waterway at Houma, La., was made in 1951, and the diminutive oil-burner coming off the swing bridge is a C-24 2-8-0 turned out by Lima in 1913 and scrapped in 1955. *But* these are details. The story is the fisherman and what's on his line . . . and what the fireman and head shack would give to trade places on a hot summer day. — D.P.M.

GS-1 Baldwin 1930

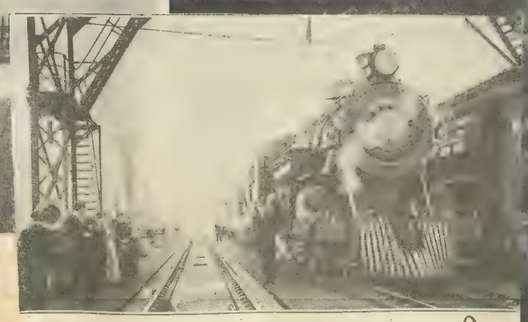


The blac
of Louisi

C. W. Jernstrom

In 1941 most of the GS-1 engines were transferred to SP subsidiary Texas & New Orleans RR. and renumbered. Engine 4407 became T&NO 705. It re gained its original number when returned to SP in 1953. Engines 4401, 4402, and 4405 were not sent to T&NO. T&NO scrapped nos. 4404 and 4406.

The black smoke of oil-fired steam power still smudges the sky down in the back bayou country of Louisiana traversed by Espee's Texas & New Orleans. No. 241 is forwarded by a lanky 2-10-2.



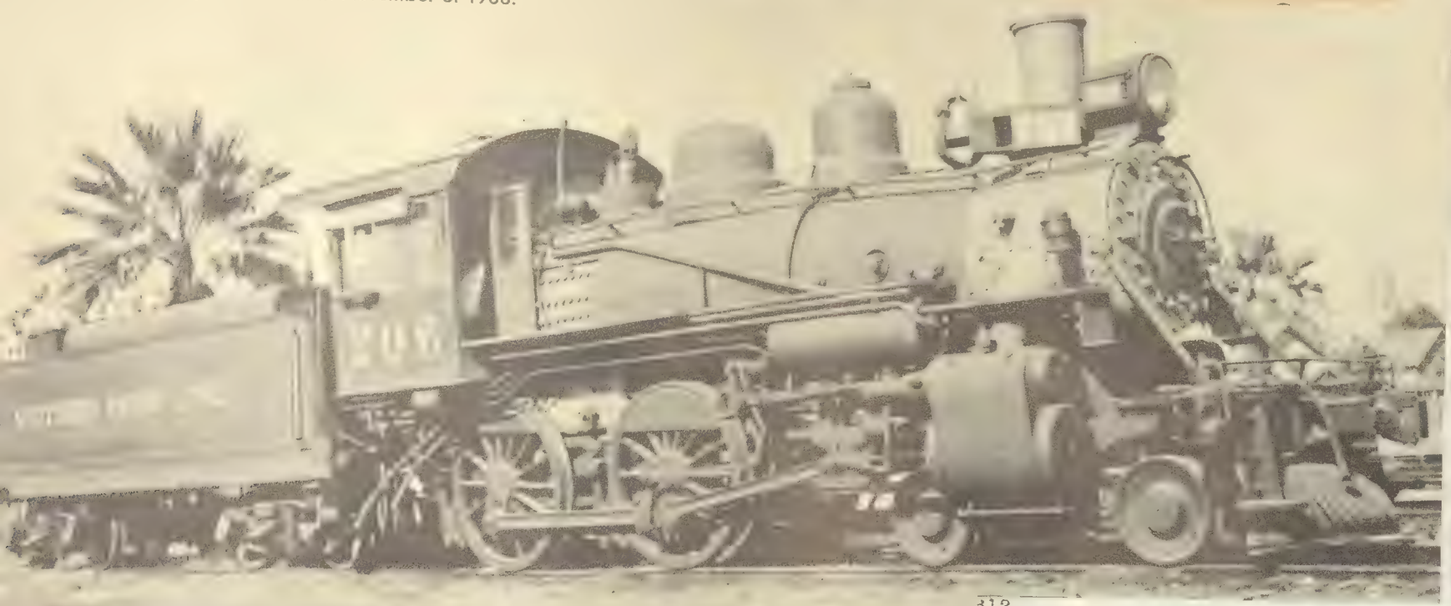
oto from Keystone View Co.
OKM Train Ferry at New Orleans

Crossing the Mississippi via the Huey Long bridge. Opened for traffic December 17, 1935

00

Among the most recent 4-4-0's to be built for use in the United States were the engines that became Numbers 205 to 209 of the Texas Lines of the Southern Pacific. They were built in 1924 for the San Antonio & Aransas Pass Railroad and became a part of the Southern Pacific in 1925. No. 206, now scrapped, was photographed at Galveston, Texas by Fred Stindt in November of 1938.

Org No. SA&AP #71
Blt by Baldwin 1924
c/n 58085



I

San Antonio & Aransas Pass depot
San Antonio, Texas

mo

Amount

312

SAN ANTONIO & ARANSAS PASS

SA&AP #23 Baldwin 1887 later renoed 35

Baldwin 1911 c/n 36725, to T&NO #497 in 1925, then to SPdeM #411 in 1949

1911

Fig. 42—Mogul (2-6-0) Locomotive for Freight Service. Built for the San Antonio & Aransas Pass by the Baldwin Locomotive Works. Cylinders, 19 in. x 26 in. Working Steam Pressure, 200 lbs. per sq. in. Diameter of Drivers, 56 in. Tractive Effort, 28,500 lbs. Heating Surface—Tubes, 2,289 sq. ft.; Firebox, 144 sq. ft.; Total, 2,433 sq. ft.; Grate Area, 27.1 sq. ft. Rigid Wheel Base, 14 ft. 6 in. Total Engine Wheel Base, 22 ft. 6 in. Weight on Drivers, 127,500 lbs. Total Weight of Engine, 149,100 lbs. Fuel, Oil.

WASHOUT ACCIDENT IN 1900 CLAIMED TWO LIVES

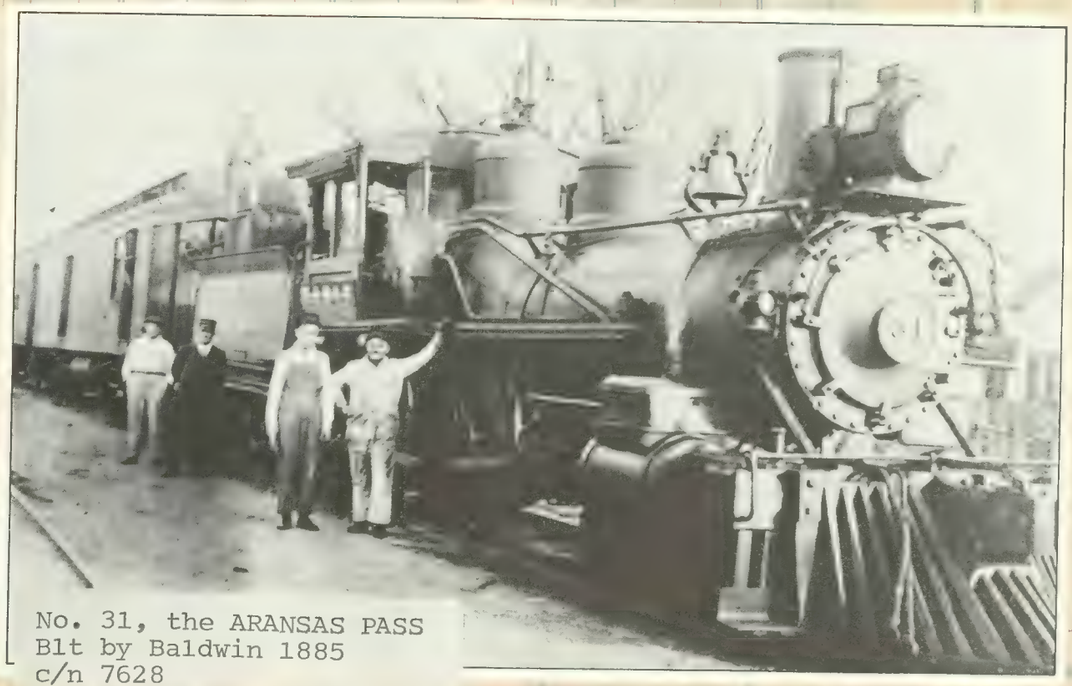
The late Brother John R. Hinds, engineer, and Harry Bowman, fireman, met their deaths in this accident which occurred near Tanglewood, Texas, May 31, 1900. The line was the old S. A. & A. P., now part of the Southern Pacific.

Baldwin 1913
c/n 40628
to T&NO #883

rivate car without plush

T all private cars were luxury wagons, as Lucius Beebe covered when he was researching Pullman's glass plates his forthcoming Howell-North venture, Mansions on Rails. e open-platform Fern Ridge of the San Antonio & Aransas s (operated by Southern Pacific after 1893) which looked all the world like a Jim Crow car was actually a hunt- and fishing vehicle for friends and directors of the old p." The decor was severe, but one can imagine the bawdy nor as shotguns were cleaned and cards were dealt while Fern Ridge was towed through the night to game country. man constructed this car in the 1880's but the pioneer der of such equipment was Jerome Marble of Worces- Mass., proprietor of Worcester Excursion Car Company. cars had everything from gun rooms to primeval freezers.

SAN ANTONIO ARANSAS PASS
MISSION ROUTE



No. 31, the ARANSAS PASS
Blt by Baldwin 1885
c/n 7628

Old Sabine Goes For Scrap

1942

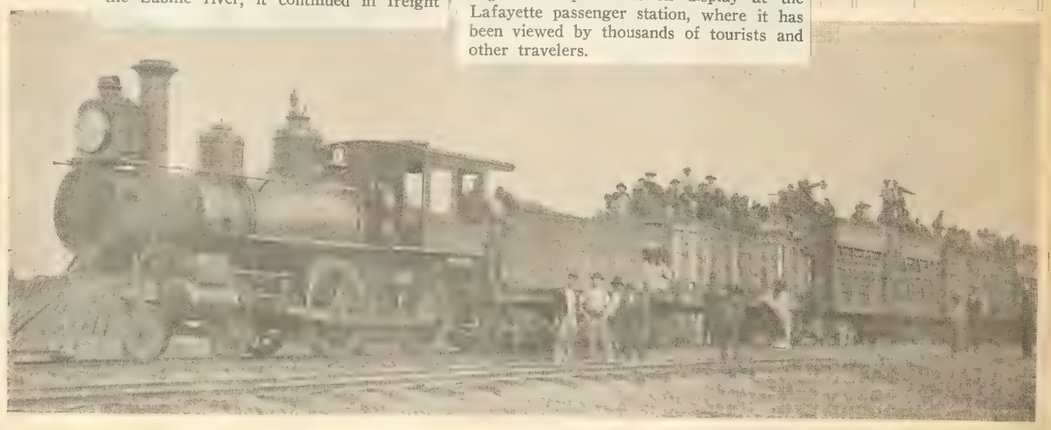
The Sabine, the Southern Pacific's most ancient locomotive, made its last run on October 5, when, during farewell ceremonies staged by citizens of Lafayette, La., where it had been on display since 1923, it was started on its way to the war front in the Southern Pacific's scrap and salvage campaign. The railroad decided to demolish its oldest locomotive and one that has played an important part in the early days of the Southern Pacific and the history of the South, to help the current nation-wide drive for metals. The metals recovered from the Sabine will be added to Louisiana's contribution to the scrap campaign.

The locomotive was built by the Niles Locomotive Works in 1854 on order of the New Orleans, Opelousas & Great Western, a rail line projected in 1852 by a group of Louisiana business men to connect New Orleans with other communities in south-central and south Louisiana. It was placed in service in 1855 while the line was being built from New Orleans to Morgan City, known in those days as Brashear City, located on the east banks of the Atchafalya river. The "Sabine" pulled trains that brought rails and other materials and supplies to build the line and, after the New Orleans, Opelousas & Great Western was sold to the late Charles Morgan in 1869, and extended on westward from Morgan City to a connection with the Texas & New Orleans at the Sabine river, it continued in freight and passenger service. To the "Sabine" goes credit for pulling the first train to make connection with the Texas line at the Sabine river in 1880, thus forming the first Eastern link in what is now the Southern Pacific system extending from New Orleans to San Francisco. Both the Morgan's Louisiana & Texas, as the New Orleans, Opelousas & Great Western was known after being taken over by Charles Morgan, and the Texas & New Orleans are integral parts of the Southern Pacific.

The "Sabine" continued in service for 42 years and then was sold to a company operating a large number of sugar cane plantations in south Louisiana. For its new owners it hauled trainloads of raw sugar cane to the plants until in 1923 the Southern Pacific re-purchased the little engine and placed it on display at the Lafayette passenger station, where it has been viewed by thousands of tourists and other travelers.

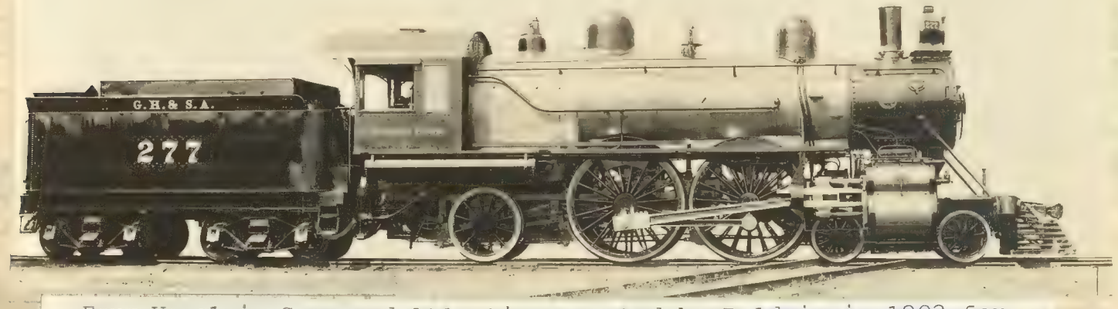
ount	Clos. No.	Sold	Amount

840-849 c/n 27325 Baldwin 1906

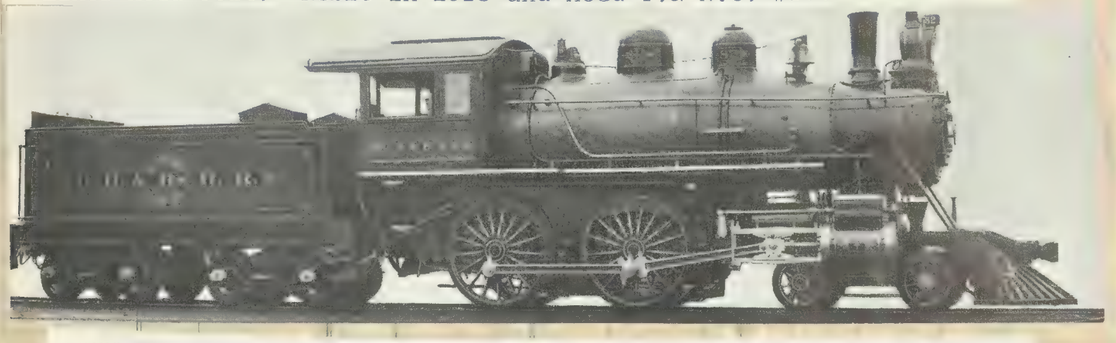


APACHE INDIANS ON TOP OF CARS

This Indian tribe was hostile to the construction of the Gila Valley, Globe & Northern Railway, but finally agreed to construction, provided members of the tribe should be permitted to ride free on all trains for 30 years. Picture taken in 1899 shows one of the first trains on the road running from Bowie, Ariz., to Globe. The 30-year limit has long since expired. Brother Seth L. Arkills, Div. 28, now retired, ran locomotive 3 during construction and afterward and owns photograph. He is in the cab.



Four Vauclain Compound Atlantics erected by Baldwin in 1902 for Galveston Harrisburg & San Antonio c/n 20855. Tfr to Pacific Lines noed 3014. Reblt in 1925 and noed T.& N.O. #277



GALVESTON, HOUSTON & HENDERSON No. 82 was the first factory built engine to burn oil. Built in 1902, this one of a class lived out a useful career on its owners short piece of Texas real estate. The GH&H main line is the shortest of the four railroads serving Galveston and Houston.

It is interesting to note that during World War I before the coming of the interurban electric line between these two cities that the GH&H ran eight (8) round trip passenger trains between Galveston & Houston and the Sunday schedule was supplemented by a "Sea Wall Special."

The Sea Wall special was operated also by the other railroads serving the two cities and they were operated on a handicap basis. The GH&H line being the shortest between these two cities, therefore, placed the departure from Houston a few minutes after the other trains leaving for Galveston on the Sunday morning excursion trains known as the "Sea Wall Specials." Approaching Galveston all railroads are required to cross Galveston Bay on a trestle (now a causeway) two miles long. The Sunday Specials were all scheduled to arrive at the north end of the trestle at the same time, but the agreement was that the handicapped train arriving at the trestle earliest was allowed on the trestle ahead of the other trains. These Sea Wall Specials apparently became a tradition in the area and the Monday morning papers always carried the performance of the participating trains.

It was in this service that GH&H locomotive No. 82 became famous in the Texas railroad world. The typical train leaving Houston was made up of fifteen to eighteen open platform wooden coaches with No. 82 at the head end and a low drivered 0-6-0 switcher on the rear end as helper to assist the train out of the station. The helper stayed with the last car of the train as long as it could, but as soon as the train was approaching road speed, the switcher came to a stop and returned to Houston. Once rolling at road speed No. 82 had no difficulty in reaching speeds between 70 & 80 miles an hour even with eighteen coaches behind her. The level tangent track between Galveston and Houston on the GH&H route made this performance possible.

During the week No. 82 was regularly assigned to the Galveston News Special which was an early morning train consisting of baggage cars loaded with newspapers published by the Galveston Daily News, then the best known and most widely circulated newspaper in the state of Texas. This with usually four or five baggage cars regularly made the run between Galveston and Houston of fifty miles in fifty minutes including five stops within the city of Houston for unprotected railroad grade crossings. The train also observed a slow down crossing Galveston Bay on the two mile long trestle, which required five minutes for the crossing. According to the general yardmaster at Galveston, No. 82 was the best known locomotive on the railroad and was the pet of Mr. Jim Hill who was general manager of the railroad during the period of its greatest performances. Mr. Hill was no relation to the famous empire builder of Great Northern fame.

The locomotive saw some service during World War II and was finally scrapped in Galveston in 1949. (Collection of C. A. Brown)

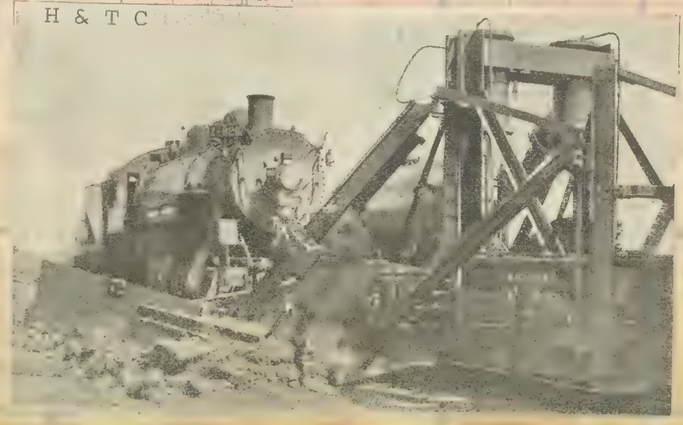
Houston East & West Texas

H.E.& W.T. #31
Baldwin 1898 c/n 16217
Later T&NO #346

Galveston, Harrisburg & San Antonio
#28 "Marion Wentworth"
Hinkley 1876 c/n 1235

832

H & T C



Track Magnet Location on GH and SA

92

HOUSTON & TEXAS CENTRAL RAILWAY was originally incorporated in 1848 as the Galveston & Red River, the change of names taking place in 1865. Construction started at Houston on a line projected to Dallas, but the Civil War halted the work near Millican until 1867. The acquisition of short lines, such as the Ft. Worth & New Orleans, eventually led to a system extending from Houston to Ft. Worth and Dallas and Austin to Hempstead. The road became part of the Southern Pacific lines in 1921. Engine 70 of the Houston & Texas Central was an 0-4-0 named the BISON. She was built by the Dickson Locomotive Works of Scranton, Pennsylvania, in 1876 and bore Shop No. 197. Note the extreme height of the footboards above the rail, a feature later changed in the interests of safety for the life and limbs of switchmen.

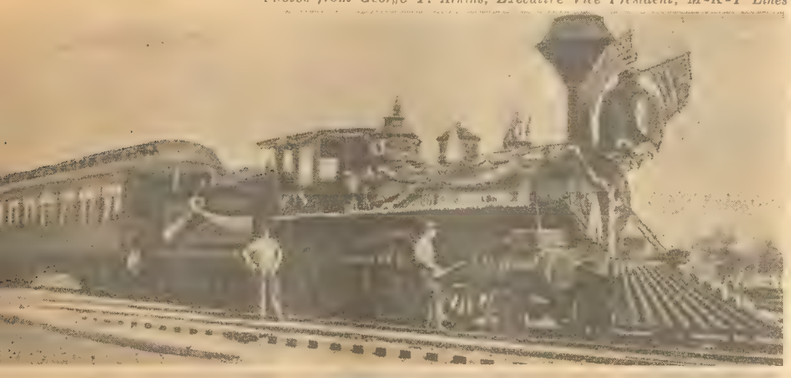
(Courtesy of Texas & New Orleans Railroad)

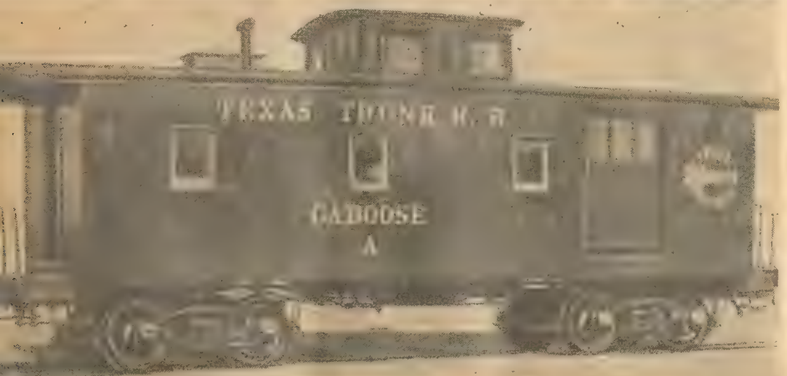
RARE VIEW OF CIVIL WAR VINTAGE, this photograph was taken about 1865 and shows the Algiers, Louisiana, depot of the New Orleans, Opelousas & Great Western Railroad. At the left, heading a freight train, stands NOO&GW Eng. 4, named the CHRISTOPHER ADAMS, JR., in honor of the road's first president. This 4-4-0 was built by Rogers, Ketchum & Grosvenor in 1853, had 12½ x 22 inch cylinders, 72 inch drivers, and weighed 24 tons; she later became No. 15 on the roster of the Morgan's Louisiana & Texas. Coupled to the coach at right is a 4-4-0 bearing the lettering of the United States Military Railroad. During the Yankee occupation of Louisiana, the NOO&GW was under Federal control and two locomotives were built by the Union railroads in the Algiers shops; these engines were named the W. G. HEWES and the COL. HOLABIRD, and one of them may be the locomotive pictured here at the right. Military Railroad records indicate that at one time during the Civil War, the CHRISTOPHER ADAMS was in use on the Memphis & Little Rock Railroad, under Federal control.

(G. M. Best collection, courtesy of Texas & New Orleans Railroad)

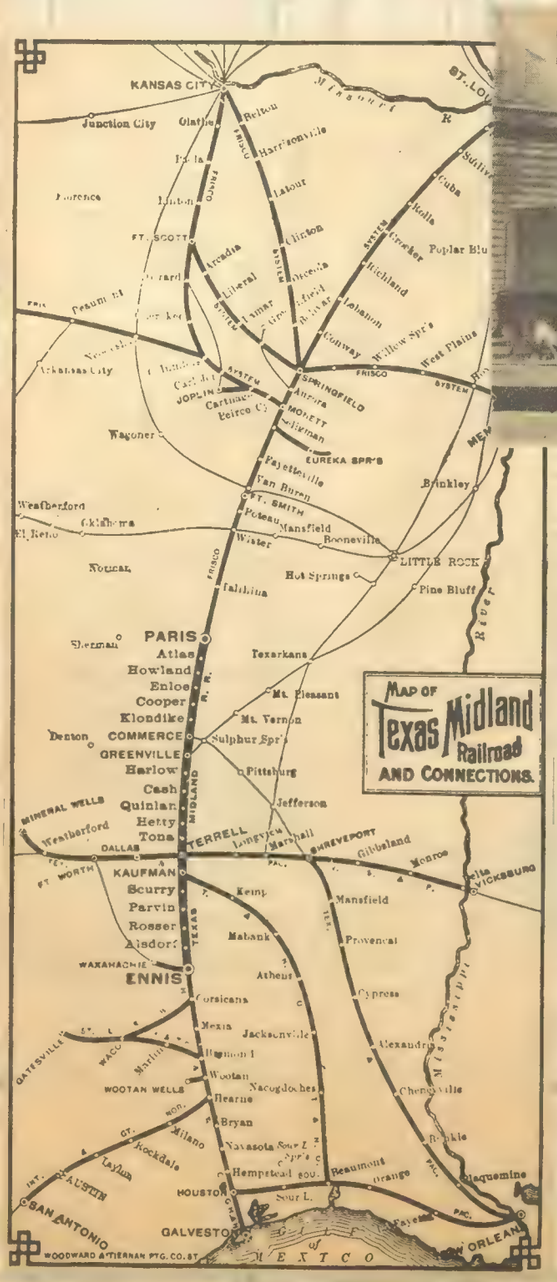
Bygone Days on the Texas Trunk (Now T&NO)

Photos from George T. Atkins, Executive Vice President, M-K-T Lines





Engine No. 7; (middle) ...d's only caboose; (below) No. 4



HOUSTON & TEXAS CENTRAL RAILROAD was organized August 1, 1889, as the successor to the Houston & Texas Central Railway. In 1901 the new company absorbed the Austin & Northwestern Railroad, the Fort Worth & New Orleans Railway, and the Central Texas & Northwestern Railway. A 23 mile extension from Burnet to Lampasas was opened in 1902, branching north from the line between Austin and Llano, Texas. Another short branch off the Austin-Llano line extended about 7 miles south from Fairland to Marble Falls. Fort Worth was reached by the branch running northwesterly off the main line at Garret. The Austin branch between Hempstead and Brenham, opened in 1866, was built under the charter of the Washington County Railroad, and the Houston & Texas Central completed the road into Austin in 1871. The road was originally built to a gauge of 5 feet 6 inches, but was changed to standard gauge in the mid-1870's. The Texas Legislature made a grant to the line of 16 sections for every mile constructed and equipped. The 4-6-0- shown here was originally No. 127, built by Cooke in 1892 under Shop No. 2210. She was renumbered 327 and finally scrapped in 1937. Her oil headlight has been converted to electricity, the dynamo mounted on the boiler between the stack and the bell.

(Courtesy of Fred Jukes)

George M. Sittig

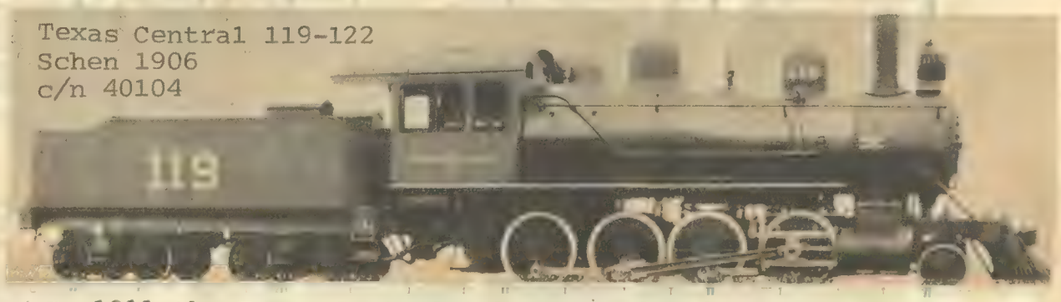
THIS LOCOMOTIVE WORKED IN TEXAS

It is 67, named the J. F. Crosby, of the Houston & Texas Central, built by the Danforth Locomotive & Machine Co.

Texas Midland #200 Schenectady 1913
To T&NO 895 Class C-25 in 1928. Now
on static dispaly Baytown, Tex.

c/n 54211

Texas Central 119-122
Schen 1906
c/n 40104



In 1911 the Texas Central taken over by the M-K-T; #119 to M-K-T #682 and the 127 to M-K-T #690. Both retired by 1926

Texas Central 127-130 c/n 48056 Schenectady 1910

Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No.

mount | Clos. No. | Sold

Clos. No. | Sold | Amount

El Paso & South Western

MIKADO FREIGHT LOCOMOTIVE

363-367 Schenectady 1913 c/n 54262

17 Locomotives like the above are being fired by Street Stokers

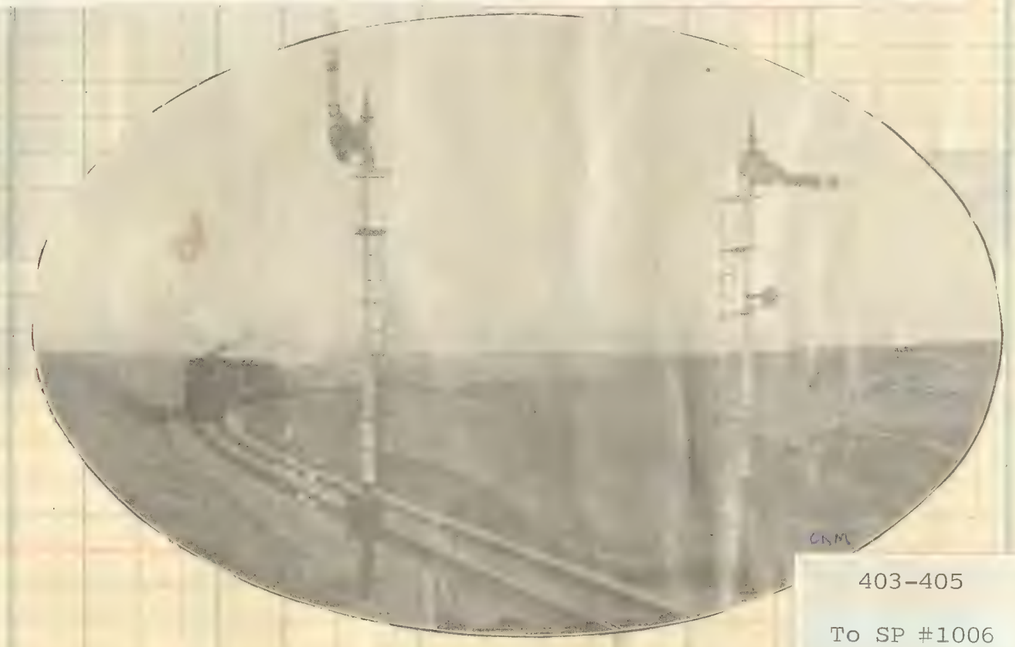
In 1924 to So Pac #3304 class MK-7

Cylinders	29 x 30 in.	Grate area	70.3 sq. ft.
Driving wheels, diameter	63 in.	Wheel base, driving	16 ft.—6 in.
Steam pressure	176 lbs.	" " engine	35 ft.—3 in.
Boiler diameter	85¾ in.	" " " and tender	68 ft.—4¾ in.
Tubes, length	20 ft.—0 in.	Weight, driving	242,000 lbs.
" number	43—5½ in.	" engine	321,000 lbs.
" "	234—2¼ in.	" tender	174,000 lbs.
Heating surface, tubes	3,975 sq. ft.	Tender capacity, water	9,000 gals.
" " fire box	225 sq. ft.	" " coal	15 tons
" " total	4,429 sq. ft.	Maximum tractive power	59,900 lbs.
" " superheater	1,030 sq. ft.	Factor of Adhesion	4.04
Fire box	120⅛ x 84¼ in.		

EL PASO & SOUTHWESTERN ROUTE
SOUTHWESTERN

EL PASO AND SOUTHWESTERN R. R.

OKM



CKM

BLW 1906

403-405 c/n 42994 Schen 1907

To SP #1006

Scene at Union Depot in El Paso, Texas, about 1900, showing trolley No. 23, with "Depot" destination sign—a car that met all the trains—and (at far right) the *Southwestern Flyer*, with open-platform observation car, on the El Paso & Southwestern Railroad (now part of the Espee). Collection of Neil S. Utberg, Box 420, Edinburg, Texas 78939

An excursion train at Alamogordo, N. M.

Schen
1920

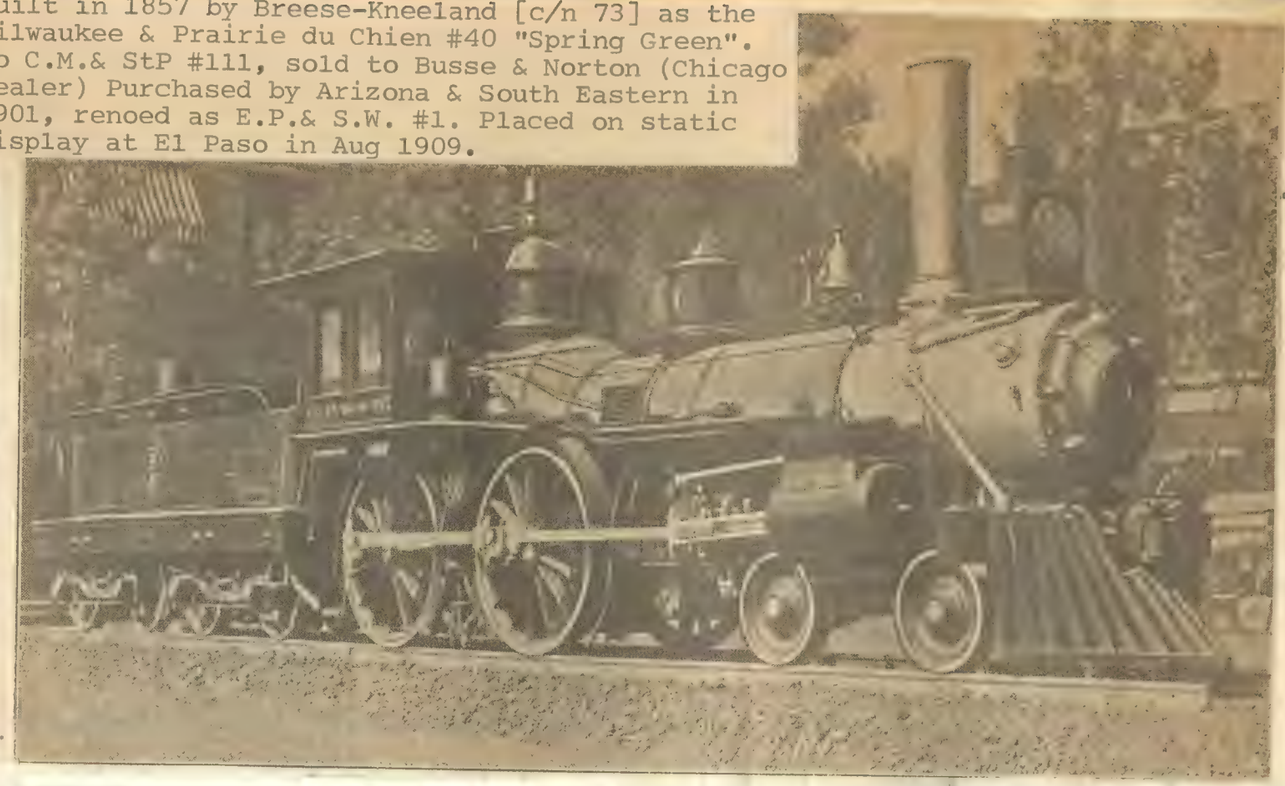
378-387

To Sou Pacific
3315-3324
class MK-9

04

This Class D-1 No. 899 was one of the few 2-10-0's owned by Southern Pacific as seen at El Paso, Texas, August 2, 1932. Baldwin-built in 1903, she was originally 28 of El Paso & Southwestern, renumbered 302, went to San Antonio & Arkansas Pass as 302, then to T&NO with last number. She was scrapped in '39.

Built in 1857 by Breese-Kneeland [c/n 73] as the Milwaukee & Prairie du Chien #40 "Spring Green". To C.M.& StP #111, sold to Busse & Norton (Chicago dealer) Purchased by Arizona & South Eastern in 1901, renoed as E.P.& S.W. #1. Placed on static display at El Paso in Aug 1909.



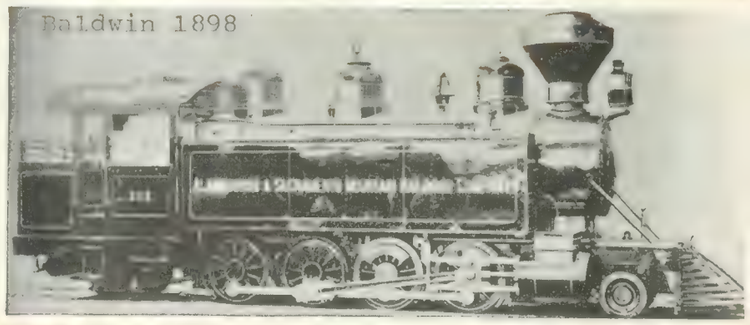
E.P.& N.E. 20-23 Baldwin 1902
to EP&SW #135, then SPdeM 702

#21

c/n 20999

Engine No. 156, of the El Paso & Southeastern R.R. on rails of the Algamore & Sacramento Mountain R.R. Cloudcraft, N. Mex.

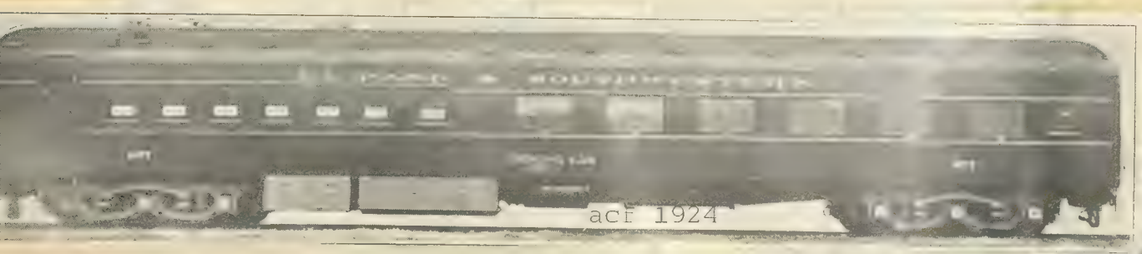
Baldwin 1898



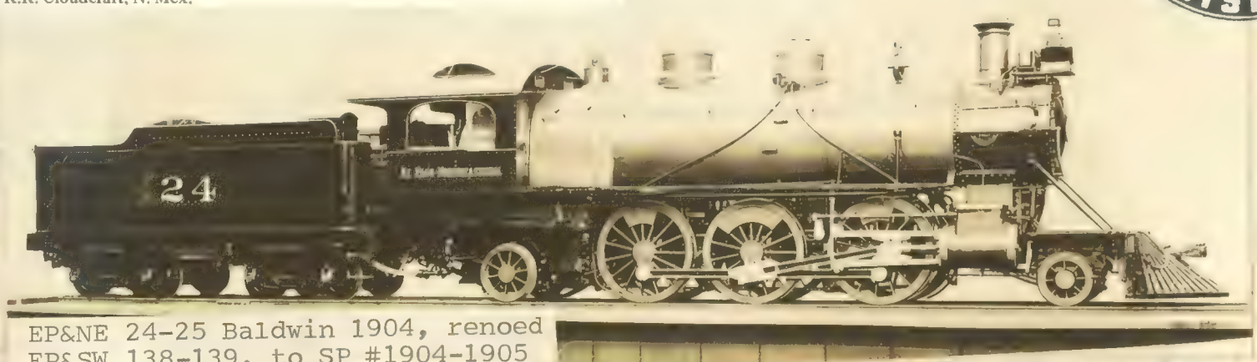
#41 Baldwin 1903 c/n 22622
Renoed 151, sold to Kirby
Lbr Co #90.

c/n 24657

EL PASO-NORTHEASTERN SYSTEM

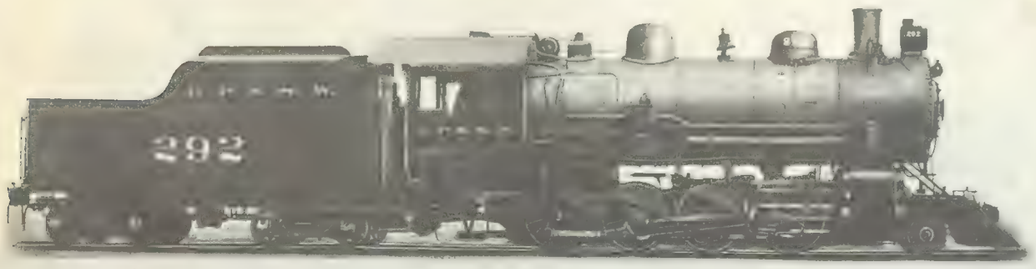


acf 1924



EP&NE 24-25 Baldwin 1904, renoed
EP&SW 138-139, to SP #1904-1905

EL PASO AND SOUTHWESTERN SYSTEM



Twenty built by Schenectady in 1907. Org #208 (c/n 44466) to #292, SP #3452 [pg 64], SdeM #658, Again SP #3452 and last FdelP #651

CONSOLIDATION TYPE FREIGHT LOCOMOTIVE

21 Locomotives like the above are being fired by Street Stokers

ders	25 x 30 in.	Fire box	108 x 66 in.
ng wheels, diameter	57 in.	Grate area	49.5 sq. ft.
n pressure	200 lbs.	Wheel base, driving	15 ft.—8 in.
r diameter	80⅛ in.	" " engine	24 ft.—4 in.
s, length	15 ft.	" " " and tender	59 ft.—7⅝ in.
number	249—2 in.	Weight, driving	193,520 lbs.
"	32—5⅝ in.	" engine	221,600 lbs.
ng surface, tubes	2,629.7 sq. ft.	" tender	388,166 lbs.
" fire box	180 sq. ft.	Tender capacity, water	7,650 gals.
" arch tubes	13.8 sq. ft.	" " coal	12 tons
" total	2,823.7 sq. ft.	Maximum tractive power	47 533 lbs.
" superheater	567.8 sq. ft.	Factor of Adhesion	4.07

410-415 Brooks 1924 Last engines delivered to the E P & S W
To So Pac (1924) nos 4385-4390

ex EP&SW #414 c/n 65792

photo by R. J. Foster

SOUTHERN PACIFIC LINES

105

os. No | Sold | Amount

3702-3711
Baldwin 1919
c/n 51694

ATCHISON, TOPEKA & SANTA FE

No. 10—Daily. (The Navajo.) No Extra Fare.
COMPLETELY AIR-CONDITIONED.
Sleepers may be occupied at Chicago until 7 30 a.m.

Sleeping Car....Los Angeles to Chicago—10-Section, Lounge.
Los Angeles to Chicago (via Grand Canyon)—10-Sec., D. R., 2-Compts. (on No. 24 from Grand Canyon).
Grand Canyon to Denver—8-Section, Drawing-room, 2-Compartments (on No. 5-6 from La Junta).
Denver to San Angelo—12-Section, Drawing-room (on No. 5-6 to La Junta; on No. 5-77 from Newton).
Phoenix to Winslow—10-Section, Drawing-room, 2-Compartments (on 42 to Ash Fork).
Tourist Sleeper..Los Angeles to Chicago (via Grand Canyon) (on No. 24 from Grand Canyon).
Cafe-Observation Car..Kansas City to Shopton (Fred Harvey service).
Chair Car.....Los Angeles to Chicago.
Smoker-Chair Car..Los Angeles to Denver. Denver to Kansas City (on No. 5-6 to La Junta). Oakland to Barstow.

Captivating as a Beethoven Concerto

This is the Navajo climbing Cajon back around 1939. It carried through sleepers to Grand Canyon and was a popular tourist train. By Herb Sullivan.

3840-3849
Baldwin 1921
c/n 55000

Fighting every inch of the way, a big 2-10-2 (Baldwin 1921) crawls tword the top of Cajon Pass

MILEAGE OF LINES OPERATED

Atchison, Topeka & Santa Fe Ry.	9,530 miles
Panhandle and Santa Fe Ry.	1,879 "
Gulf, Colorado & Santa Fe Ry.	2,129 "
Total Mileage	13,538 miles

The only railroad under one management between Chicago and California

Ship-Travel Santa Fe all the way

106

3420

Ten engines, 3420-3429, were delivered by Baldwin in 1921

Shown here as rebuilt at the Topeka Shops in August 1935 with all the latest improvements. Even with all the outside plumbing she still remains attractive.

C/n 54948

A massive Northern type (world's heaviest 4-8-4) delivered by Baldwin 1943 wheels a westbound extra near Olathe, Okla.

2900-2911
Baldwin 1943
c/n 69796

The stables and paddock at Argentine, Kan.

Santa Fe.

1940

Clos. No. Sold Amount

s. No.

937

Compound Atlantic 1488 on train #16 at Saffordville, Kansas
Enlarged smokebox contained a reheater

107

Baldwin 1910
c/n 35361

3440-3449
Baldwin 1924
c/n 57689

Santa Fe 3444, a 4-6-2, with the San Bernardino-to-Los Angeles local at South Pasadena, Calif. March 1950

Thomas M. Hotchkiss

The 1091 works a local on the Pekin branch. One of the 2-6-2's delivered by Baldwin 1902

Paul Stringham.

Cherryvale, Kans.

The 1261, one of the sturdy Pacifics delivered by Baldwin 1906 [c/n 28200], still showing them how it is done as she brings an imposing train of tonnage across Martinez trestle.

Skull Valley, Arizona on line between Ash Fork and Phoenix

The late Herb Sullivan, who claimed the Cajon country as part of his dominion, produced hundreds of excellent action photos taken on the "hill". Above is a prime example of his work. Santa Fe type #3863 with an eastbound train toils upgrade thru the wind polished rock formations

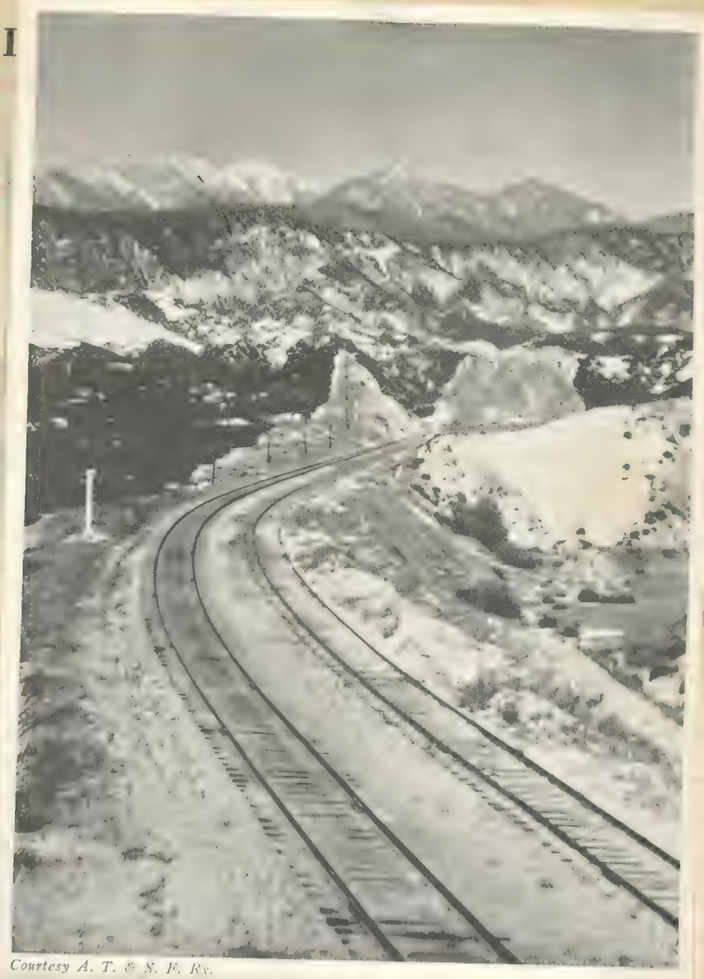
Courtesy Santa Fe

pable of accomodating 2640 cars, Barstow Yard in the Mojave Desert is an important operating point ere Santa Fe lines from the east diverge to Northern and Southern California. In addition to Santa Fe ffic, Barstow accomodates Union Pacific's Southern California business on joint trackage.

TI

No.

Amer



Courtesy A. T. & S. F. Ry.

Wheel Clicks Collection.

Upgrade to Summit nearly 4000 feet above sea level. Two Santa Fe type locomotives (2-10-2) snake the train through the Cajon Pass.

Chard Walker.

It was a rugged winter in sunny California. Unprecedented blizzards and rainstorms blocked many rail lines and forced delays or unusual detours on many trains. For a while, the Southern Pacific was washed out at Saugus, so four San Francisco-Los Angeles passenger trains were detoured over the Santa Fe from Mojave through Barstow and over Cajon Pass to Los Angeles. This is one of them, the West Coast, passing Summit station.

Herb Sullivan

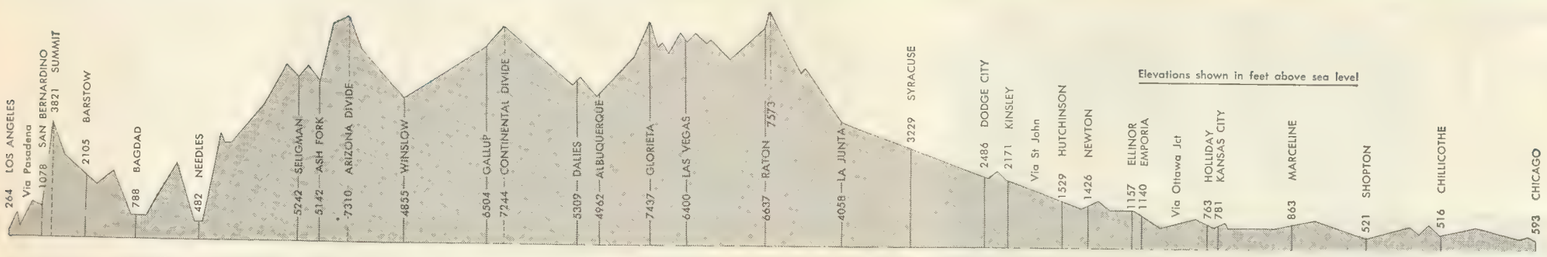
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

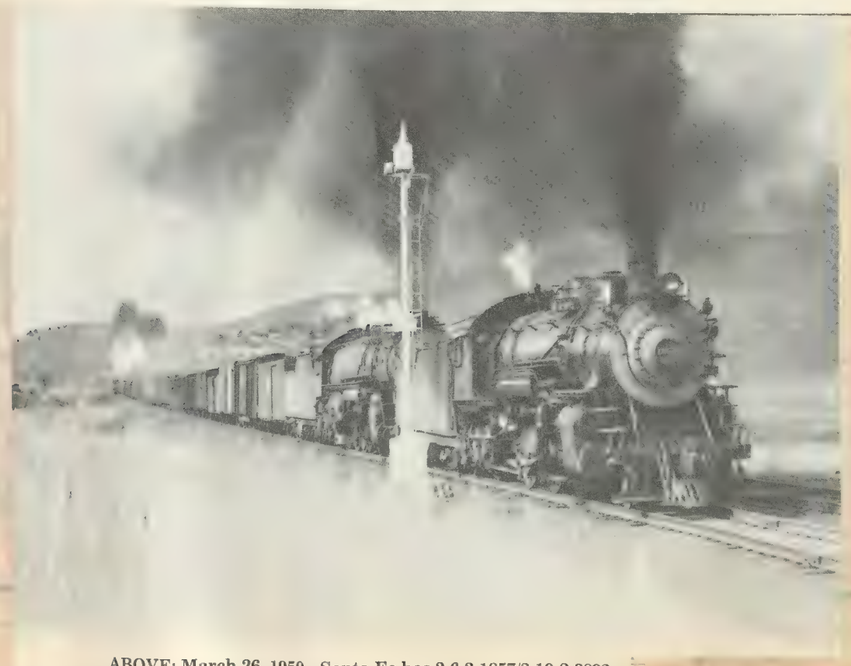
Santa Fe

Santa Fe Through Lines
Two Tracks
Connecting Lines

Copyright by Rand McNally & Company

Elevations shown in feet above sea level





ABOVE: March 26, 1950—Santa Fe has 2-6-2 1857/2-10-2 3892 up front and 2-10-2 3898/2-10-4 5010 on the rear moving westbound freight up 5-per-cent Raton Pass near Morley, Colo.

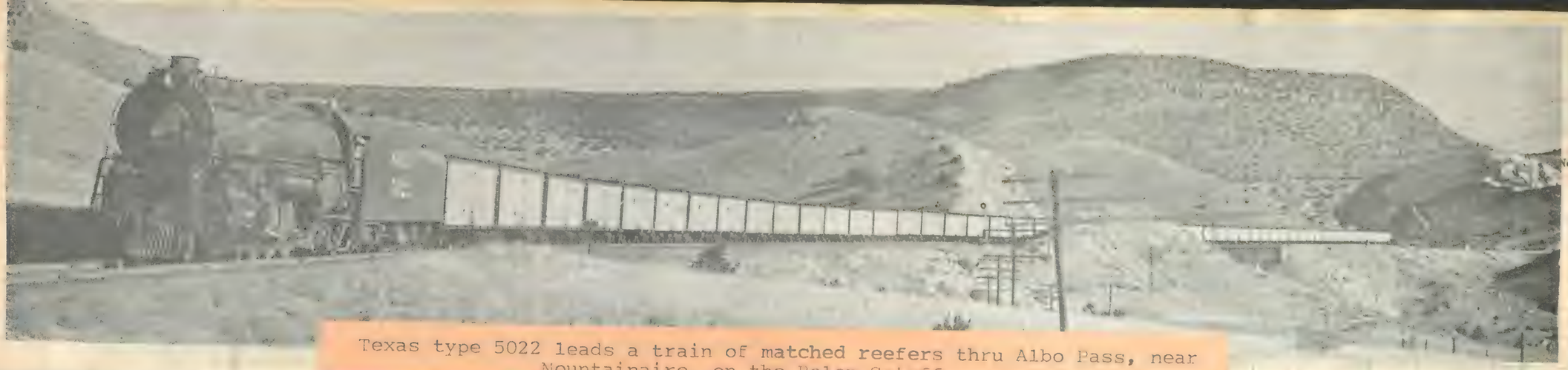
Northern Type 3758 (Baldwin 1928) with a special train at Santa Ana, Calif on July 3, 1952

TRAVELED

110

SELLER
DATE
FORM

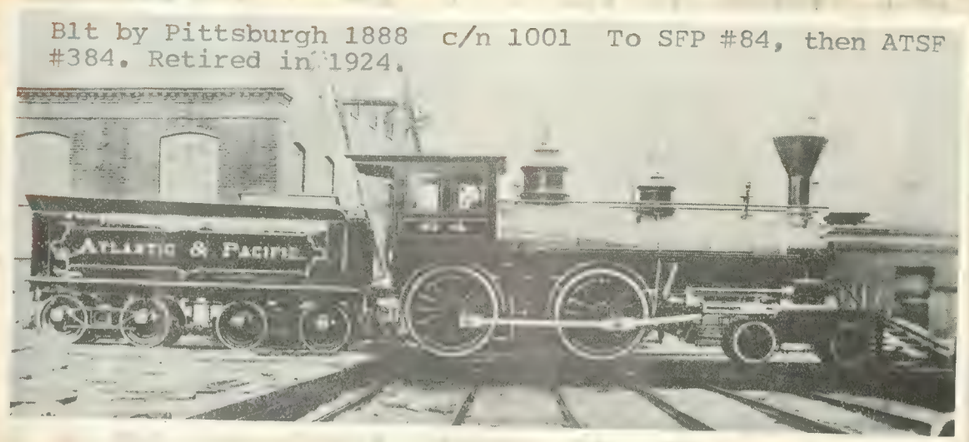
No. | Sold | Amount | Clos. No. | Sold | Amount



Texas type 5022 leads a train of matched reefers thru Albo Pass, near Mountainaire, on the Belen Cutoff.

San Francisco & San Joaquin Valley #1
"Claus Spreckels" Baldwin 1895 c/n 14332
In 1900 to
ATSF #309

old to Alberto ... Empire ... ction ... 309 on 7/2...

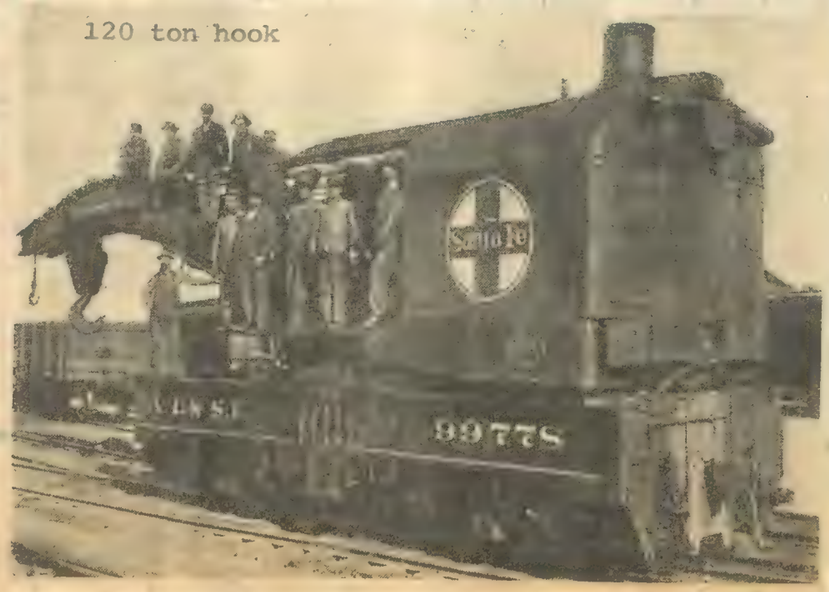


Blt by Pittsburgh 1888 c/n 1001 To SFP #84, then ATSF #384. Retired in 1924.

American railroads employ more than 237,000 men to maintain their tracks, signals and bridges. It is all-weather, year-round work — hard work. Today these Santa Fe section hands are raising track near Flagstaff, Ariz.; tomorrow they may be rebuilding a line ravaged by a cloudburst, or laying new, heavier rail, or replacing worn ties. These men are known as gandy dancers.

A SANTA FE WESTBOUND PASSENGER TRAIN with two locomotives and fourteen cars tore around a curve at Domingo, N. Mex. on July 3, 1923, and careened off the track. Killed in the wreck were both the engineers and both firemen; forty-five passengers were badly injured.

120 ton hook



Famous Santa Fe trains to and from California

California Limited

The "CALIFORNIA LIMITED" introduced the Far West to luxury train travel in November 1892. Shown here on one of its initial trips on Southern California trackage (Los Angeles-Barstow) behind SC #54, a 4-6-0 built by Manchester 1887. Orgin #SC550, later AT&SF 770-322. Retired in 1922.

THE "SANTA FÉ DE LUXE" MAKING 65 MILES PER HOUR.
This weekly train covers the 2,263 miles between Chicago and Los Angeles in 63 hours, giving an average speed for the whole journey of 36 miles per hour.

The pride and joy of the Santa Fe with Atlantic type #529, one of 35 Baldwin compounds built1904, races across the Kansas plains in this excellent early era action foto

Designed for its most discriminating patrons, the "DeLuxe" was the zenith in exclusive travel. Operating once a week and limited to 60 passengers who were wined and dined in elegant fashion. First trip made in Dec 1911, withdrawn in 1917. Extra Fast-Extra Fine-Extra Fare.

The California Limited near [illegible]

The revised version of the "California Ltd" that was placed in service December 1896 and operated on a bi-weekly schedule.

Santa Fe Train No. 9, hauled by a Baldwin Pacific Type Locomotive, Railway Company's Class 3400

No. 9—Daily. (The Navajo.) No Extra Fare.
COMPLETELY AIR-CONDITIONED.
Pullmans ready 10 30 p.m. at Chicago.
Sleeping Car...Chicago to Los Angeles—10-Section, Lounge.
Dining to Grand Canyon—Section, Drawing-room, 2-Compartments (to Newton) La Junta
Winslow to Phoenix—Section, Drawing-room, 2-Compartments (to Ash Fork)
San Angelo to Denver—1-Section, Drawing-room (to Newton) (to Newton) from La Junta
Grand Canyon to Los Angeles—1-Section, Drawing-room, 2-Compartments (to Newton) from Chicago
Barstow to Oakland—5-Section, Drawing-room, 2-Compartments (to Newton) from Chicago
Tourist Sleeper Grand Canyon to Los Angeles (to Newton) from Chicago)
Barstow to Oakland—Sunday, Tuesday and Thursday.
Cafe Observation Car—Shopton to Kansas City (Fred Harvey service).
Bakersfield to Oakland
Chair Car.....Chicago to Los Angeles. Kansas City to Oakland.
Smoker-Chair Car—Kansas City to Denver (to Newton from La Junta).
Denver to Los Angeles. Barstow to Oakland.

1939

THE CHIEF—Nos. 19 and 20

Extra Fast, Extra Fine, Extra Fare

THE Chief Santa Fe

No. 20 Daily Trn Chief

1934

The CHIEF was installed in November of 1926 on a 63 hr schedule with a $10 "Extra Fare" charge. First class all the way it soon became the premier train of the Santa Fe.

GRAND CANYON LIMITED

A fine fast daily train for all classes of travel, carrying Fred Harvey dining car. Pullmans direct to the Canyon's rim.

The Santa Fe Grand Canyon

Having just crossed the Illinois River, the 13 cars of Trn #23 following a big Baldwin 4-6-4, drifts in for a station stop at Chillicothe, Ill.

Santa Fe Engine 3461, 4-6-4 Type, the first steam locomotive to be run through from Los Angeles to Chicago. On #8, the fast mail and express, east of Lamar, Colorado on the Colorado Division. Photo by Otto C. Perry.

CALIFORNIA LIMITED Daily California train carrying Standard Pullmans, chair-car, club and observation cars, and Fred Harvey diner.

In 1924 Baldwin delivered ten Pacifics noed 3440-3449. Here is Trn #4 rolling along over the Illinois Division with the 3448 doing the honors.

MENT — No. 4 Daily The California Limited.

1934

No extra fare.

Los Angeles to Chicago—14 ...
Los Angeles to Denver—10 ... D. R., 2 Comps.
Compartments (on No. 13 ...
San Francisco to Chicago— ... D. R., 2 Comps.
Compartments (on No. 2 to ...
... D. R., 2 Comps.
... Kansas City, via C. B. & Q. and Mo. Pac. and Wabash.
Kansas City to ... to Santa ..., D. R., 2 Comps.
Observation Parlor Car, San ... Los Angeles.
Arrive ... Daily to Chicago. Leave 5:30 p.m.
... Fred Harvey ...
Cafe-Observation Car, ... Barstow (on connecting train).

Crossing Muir Trestle-Martinez, Cal.

The Scout↑ is brought up the 1 per cent grade out of Knightsen, Calif., by a rebuilt Hudson.

THE SCOUT Daily chair car-tourist Pullman train to and from Los Angeles, with through tourist-Pullman via Carlsbad, N. M., for Carlsbad Caverns National Park. Economical Fred Harvey dining car meals, special car for women and children; courier-nurse.

Santa Fe

THE RANGER
Trains 5 and 6

Non-extra fare Pullman and Chair Car Service

Santa Fe Dormitory Parlor-Lounge Car	Chicago and Ft. Worth.
Sleeping Car	Chicago and Galveston—24 Duplex Roomettes.
	Chicago and Galveston—6 Sec., D. R., 4 Double Bedrooms.
	Chicago and Wichita—10 Sec., D. R., 2 Comps.
	Ft. Worth and Galveston—10 Sec., D. R., 2 Comps.
	Kansas City to Chicago—14 Sec. (Eastbound only).
Dining Car	Chicago and Ft. Worth (Fred Harvey Service).
Chair Car	Chicago and Galveston. (Ladies' Lounge and Men's Dressing-Room).

THE OIL FLYER
Trains 47 and 50.

Lounge Car	Chicago and Kansas City. (On Train 23 and 24).
Sleeping Car	Kansas City to Tulsa—6 Sec., D. R., 4 Double Bedrooms. Sleepers may be occupied at Tulsa until 8:00 a.m.
	Tulsa to Chicago (on Train 4 Kansas to Chicago).
Dining Car	Chicago to Kansas City. (Fred Harvey Service).
Chair Car	Chicago to Kansas City. Kansas City to Tulsa.

Lucius Beebe photograph

69

SANTA FE SMOKE

Giving the photographer the satisfaction of a rolling smoke exhaust, this Atchison, Topeka and Santa Fe hogger is wheeling Train 101, the Centennial State, through Littleton, Colorado, en route to Colorado Springs, Pueblo, La Junta, Kansas City, and Chicago. A light train of five coaches and Pullmans is headed by a Mountain engine, No. 3719, of typical Santa Fe design. South out of Denver the mainline as far as Colorado Springs is used jointly by the Santa Fe, Colorado and Southern and Rio Grande.

Santa Fe's Oil Flyer hurries south from Bartlesville toward Tulsa. Silvery Pullman is from Chicago, off Texas Chief at Kansas City.

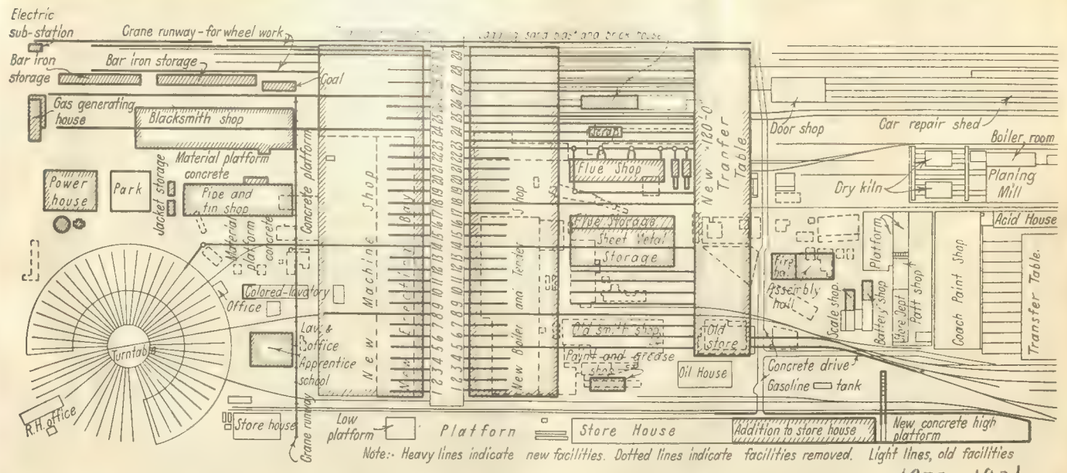
A part of the garden at Richmond, Cal.

Snow made one of its rare appearances in Southern California in January 1949. Local No. 42 is shown accelerating on the Second district mainline at Chapman on the chilly morning of January 14th.

The date is January 1948 and Second district Local No. 42 passes Mission Tower as it clears the throat tracks of the Los Angeles Union Passenger Terminal. Soon it will follow the L.A. river west bank then cross the river on a curving truss bridge heading east for Highland Park, South Pasadena and then the stiff 2.2% grade to Pasadena.

SANTA FE'S ENGINE 3443 LEAVING LOS ANGELES PASSENGER STATION ON LOCAL TRAIN NO. 42 H. L. Kelso OKM

One of six 4-4-0's built by Schenectady in 1886 for the Chicago, Kansas & Western. No. 45 was CK&W #7 (c/n 2172) then to ATSF #413, #243, #45. Retired 1922

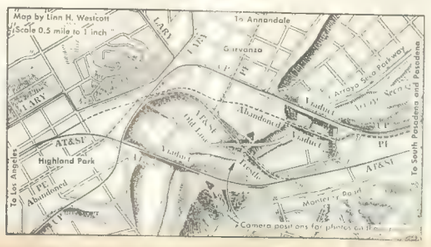


Plan of Santa Fe Coast Lines Shops at San Bernardino, Cal., as Reconstructed 1922-1926

Machine Shop Erecting Bay Served by 250-Ton Crane San Bernardino

115

Collection of C. C. Pierce, 1572 W. Pico St., Los Angeles, Calif.



Between Pasadena and Los Angeles the second district main line crosses Arroyo Seco to Highland Park←. The old line, built by the Los Angeles & San Gabriel Valley Railroad, crossed on a timber deck truss ↑, shown in 1885 with a train headed west. Years later an awkward dip was eliminated by a new all-steel viaduct located 2000 feet downstream at a higher level→.

SANTA FE 466, an 1894 Baldwin, was built as California Southern 24 and ... pped two days after this photo ... 34, at Bakersfield, Calif.

Blt by Manchester 1887 (c/n 1352) as Santa Fe #647
To So. Calif.#16, ATSF #295, 2.

Photo by H. L. Kelso, Box 4846, Los Angeles 1, Calif.

SANTA FE'S Second Seventy-Five as she flashed by Hobart Tower (UP crossing) bound for Los Angeles Passenger Terminal. Old coach and seven former IER trailers of her consist handled seaman commuting between LA and San Diego during the war

ste

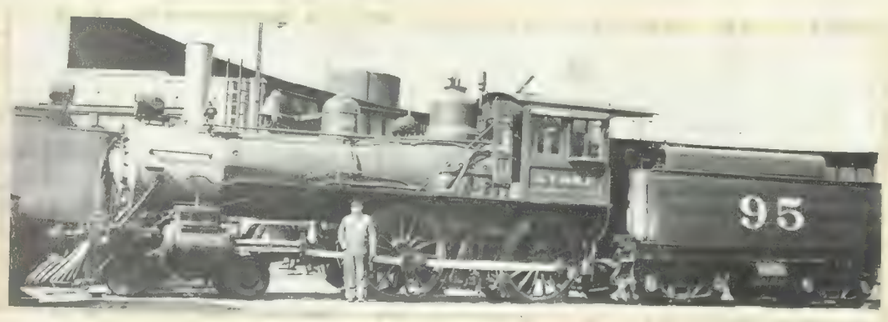
Clos

...unt | Clos. No. | Sold | Amount

California Southern #15
Baldwin 1887 c/n 8522
To So. Calif #64, then
ATSF #417

Built by Manchester (c/n1351) in 1887 as Santa Fe 646. To SC #15, ATSF #304 and last as #11. In Sept 1917 sold to Sacramento State Fair Assn.

HARLAN HILLEY



#95 was the last American to operate on the Santa Fe. Delivered by Manchester as Santa Fe #546 in 1887 c/n 1310. To SF #314, GCSF #206, ATSF #95. Ret Sept 1940.

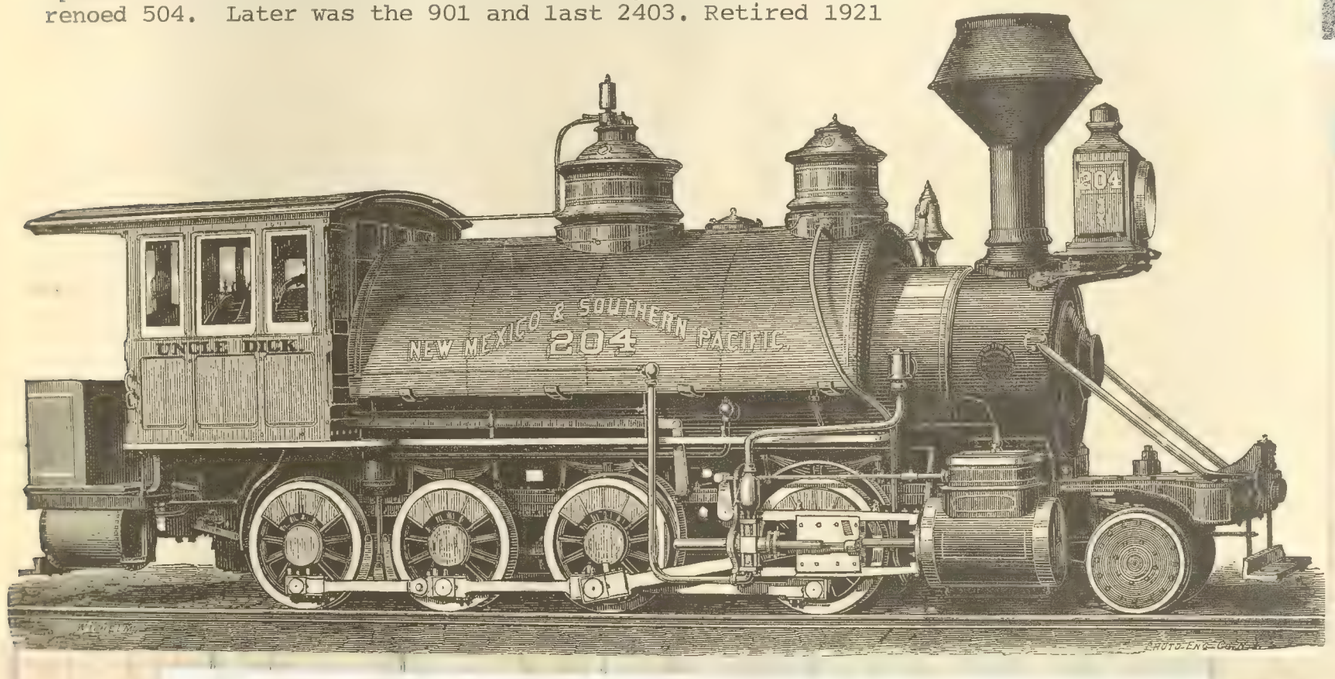
On a gray Sunday morning in 1950, No. 45 pauses at Arcadia to wait out the clock. With a light mail load, it was not hard to arrive at stations ahead of schedule. The paddle of the home signal for the Pacific Electric crossing of the Monrovia-Glendora line is clear and in a few moments the bark of 3445's exhaust will echo off Arcadia tower as it heads for Pasadena and on to Los Angeles.

Third district train No. 51 rolls into Atwood behind 4-6-2 3445 on a spring morning in 1951. For a number of years the San Bernardino Local made a trip over the olive district to the city of Orange. From Orange it would wye onto the tracks of the Fourth district for its westward journey to Fullerton and Los Angeles via Anaheim.

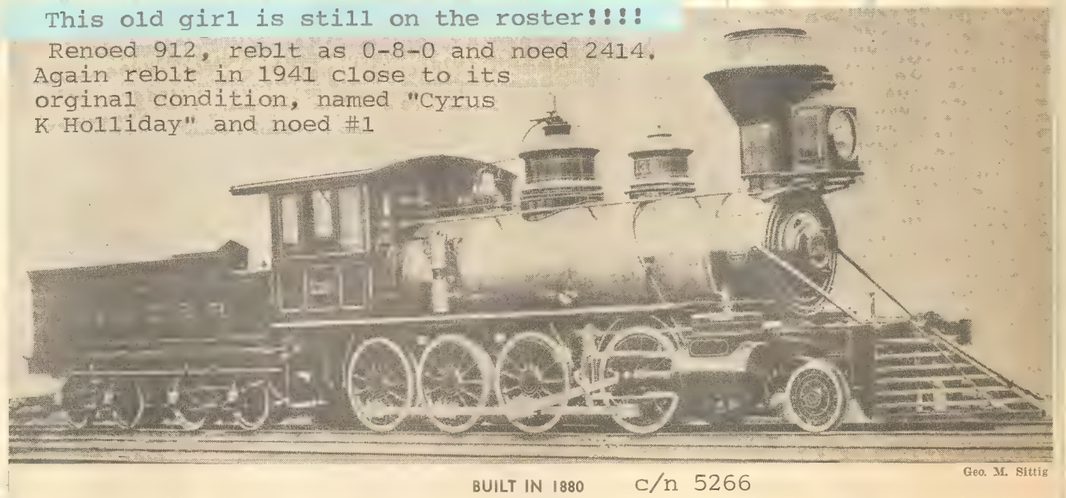
The "Wm B Strong" (2nd#2) Topeka Shops 1881
Later #82, #0174

Five aristocratic Eight Wheelers delivered by Baldwin in 1879 noed 87-91. #91 c/n 4613, renoed #040

"Uncle Dick" built by Baldwin in 1878. Named for Dick Wootton (who owned Raton Pass and at that time was the heaviest engine ever constructed. After trackage was completed over Raton Pass was rebuilt as regular 2-8-0 and renoed 504. Later was the 901 and last 2403. Retired 1921



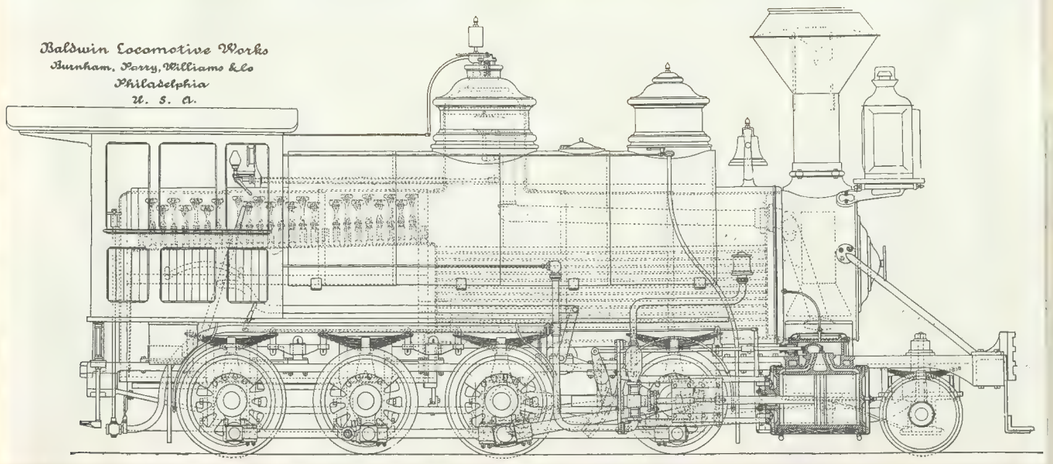
This old girl is still on the roster!!!!
Renoed 912, rebit as 0-8-0 and noed 2414. Again rebit in 1941 close to its orginal condition, named "Cyrus K Holliday" and noed #1

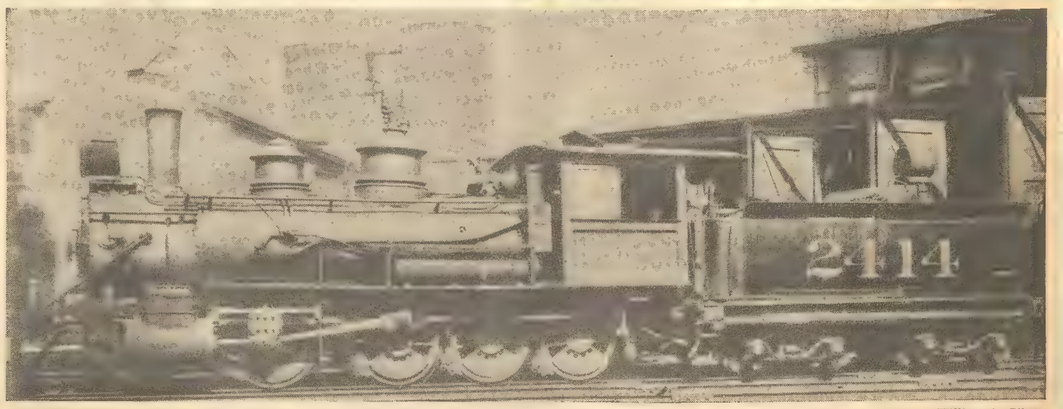


Geo. M. Sittig

BUILT IN 1880 c/n 5266

Locomotive 132 was delivered to the Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. Cylinders, 20 by 28 inches; drivers, 50 inches.

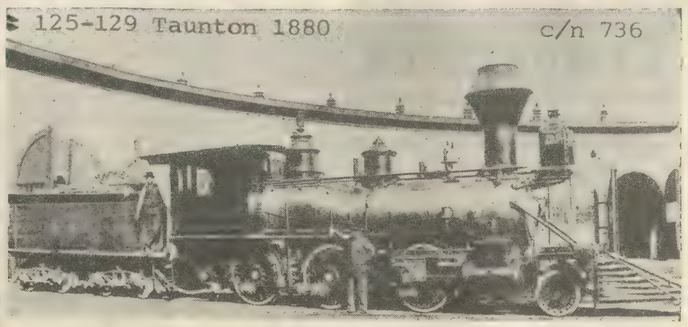




William A. Gibson

SHOP GOAT AT ARGENTINE, KANSAS

At the age of 58, locomotive 2414, after 52 years in service on the Atchison, Topeka & Santa Fe, still functions, being the shop goat in the yards at Argentine, Kans. Originally it was a 2-8-0 numbered 132, and later 912. It has been changed to a 0-8-0 and is thought to be the oldest engine in service in the United States.



SANTA FE'S OLD ENGINE 125 AT EMPORIA, KANS., ROUNDHOUSE IN 1882

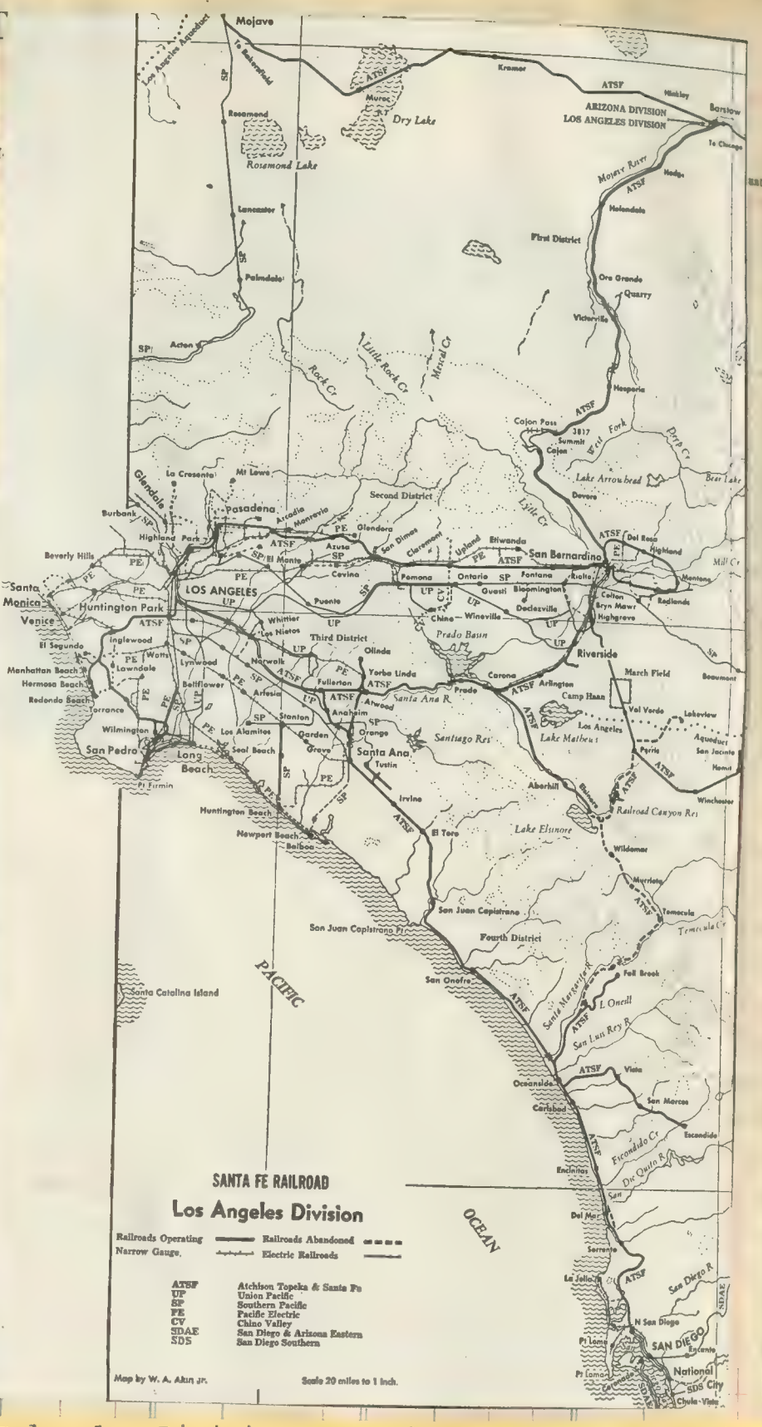
S. R. Wood

BUILT FOR ATCHISON, TOPEKA & SANTA FE IN 1872

Old engine 16, named the "Topeka," had cylinders 14 by 24 inches, drivers 60 inches, 6-inch air pump and Hackney stack; total weight of engine, 52,200 pounds. Engineer E. Naud in cab.

117

The Grand Canyon Limited at the place in Cajon Pass where the westbound track (foreground) and the newer eastbound upgrade track separate. The two huge slanting rocks in the middle background appear closeup in many photos of the pass. By Herb Sullivan.



What is now the Los Angeles Division was built, for the most part, as the California Southern in the 80's. Constructed from National City and San Diego via Temecula canyon to Colton which was reached in August 1882. Extended to San Bernardino by Sept 1883. In 1884 the Atlantic & Pacific acquired the trackage from the Colorado River to Mohave from the Southern Pacific and obtained by Santa Fe in 1897. Track laid over Cajon Pass in 1885 and connection made with the A&P at Waterman Jct, renamed Barstow next year. Thru service between San Diego and east established in Nov 1885. Line from San Berdue to L.A. opened in 1886 and operated by C.S. Absorbed by Santa Fe in 1887.

ngine 3866 heads a westbound extra one mile out of Victorville, Calif. She is one of twenty-six 3800-class locomotives delivered to the Santa Fe in 923 (Nos. 3850 through 3875). Though nearly identical with ten locomotives delivered in 1921 these 26 were heavier, and two of them (3868 and 3869) came equipped with trailing truck boosters

Eastbound main just past Cajon.

Wheel Clicks collection: H. M. Eichstaedt, 202 Monroe Pl., Monrovia, Calif.

H. Sullivan, Placentia, Calif.

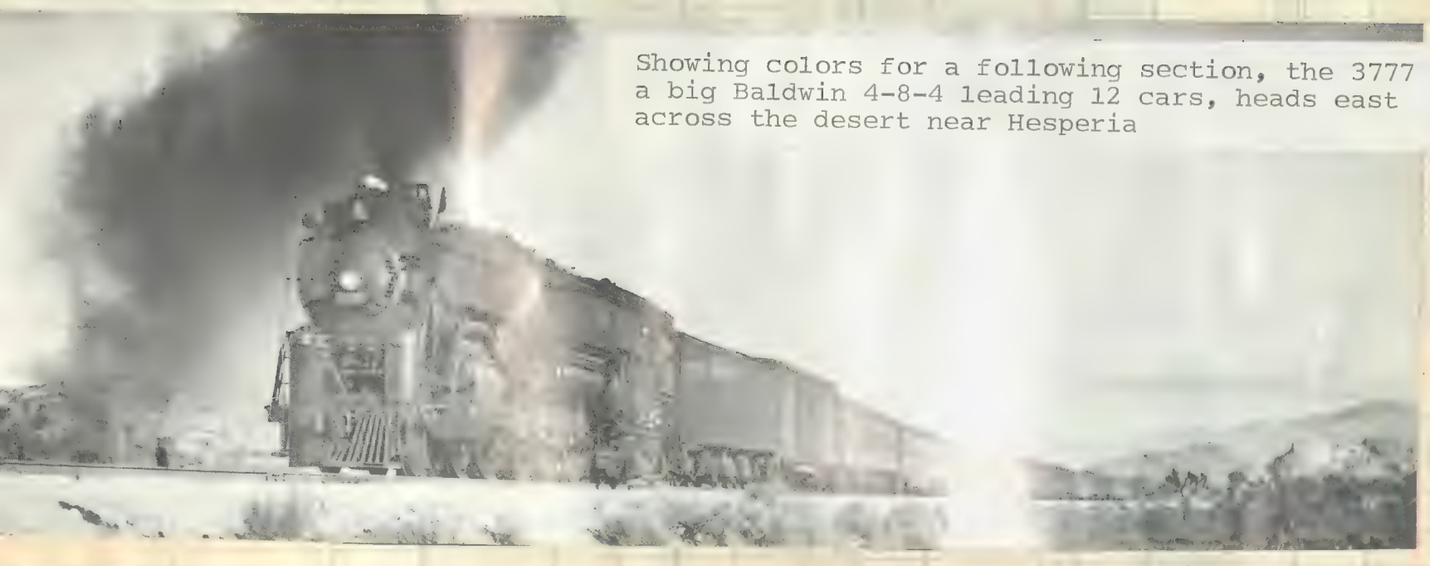
A pretty Pacific, the 1372 (Baldwin 1913) puts on an air of importance as she shows the way for the 3774 (4-8-4) and the CHIEF to Cajon summit.

The 3531, one of the old four cylinder Pacifics delivered by Baldwin 1914 and rebit at San Berdue 1922. Here on the point of the Grand Canyon Ltd heading up Cajon.

[redacted]

119

Extra 3901 drifts down off the Cajon



Showing colors for a following section, the 3777 a big Baldwin 4-8-4 leading 12 cars, heads east across the desert near Hesperia

A wondrous, emotional scene of sight and sound that diesels could not duplicate in a thousand years!!!! With sanders and throttle wide open, the 3738 leads the CHIEF to do battle with the Cajon.

THE GRAND CANYON
A new daily 48¾ hour standard Pullman and chair car train to and from California. Faster service direct to the South Rim of Grand Canyon. Courier-Nurse service. Non extra fare.

Robert Hale.

Northern 2923, with the Grand Canyon Ltd, relaxes at Cajon Summit

Both photos, Robert Hale.

The fight is over and the war is won for this second section of Santa Fe's Grand Canyon, and the 4-8-4 up front drifts downgrade, her standard cars rolling through a fog of brakeshoe smoke caused by the 3 per cent grade.

1st #20 with Engine 3755, one of the first Santa Fe 4-8-4's (Baldwin 1928) swings across the Mohave River west of Oro Grande.

Lucius Beebe

"THE SPARKLING NOISE OF THEIR RIDING
IS EVER IN OUR EARS"

Into the Puerto del Cajon rolls the Atchison, Topeka and Santa Fe's The Chief on the 83-mile run between San Bernardino and Barstow. The summit of the Cajon is 3,800 feet above sea-level and it requires two of the Santa Fe's most powerful locomotives, a Mountain and a Northern, to haul her eleven light-weight steel cars of air-flow design up to Summit. From Summit through Lugo and Hesperia to Victorville, where the helper engine is dropped, is an easy roll and from there across the broad uplands of the San Bernardino Mountains to Barstow The Chief makes time on its fast transcontinental schedule.

H. Sullivan

SANTA FE'S LOCOMOTIVE 3839 WITH FREIGHT DRAG IN CANJON PASS, CAL.

121

Westbound tonnage moves away from Victorville
behind a pair of 2-10-2's

The westbound CHIEF approaches
San Berdoo

Santa Fe

Atchison, Topeka and Santa Fe Fruit Train of Seventy-five Cars
in Cajon Pass, Hauled by a Baldwin 2-10-2 Type Locomotive

There's a decided chill in the early morning air (note the steam exhaust and the bundled up head brakeman) as three big 2-10-2's lift yet another train up Cajon.

Walter H. Thrall Jr.

3761 at work early in 1947↑↗. Smoke elevator is in up position near summit of Cajon Pass↑.

Wheel Clicks collection.

Until a few years ago an old dining car (below) was the station at Summit. As the sun sinks slowly in the West mountains become boldly outlined while the rigid arms of the semaphore stand out sharp and clear.

Now the helper engines have pulled clear of the waycar and are on their way back down the track to the Summit depot. The man on the end platform will release the hand brake and let the car roll down the incline, and the brakeman on the ground will pop the switch over so the waycar will roll back onto its train. Steam locomotives, both in road and helper service, are supplementing diesels on war traffic.

It took a lot of muscle to lift eleven cars unassisted up the Cajon slopes but a big Northern like the 3770 was equal to the task. The 3770 was delivered by Baldwin in 1938

Operator at Cajon Summit.

Harvey Johnson, operator at Summit station on Cajon Pass, hasn't time to talk with visitors these days. He and the men on the other two tricks have reported as many as 150 trains past Summit in 24 hours, as many as 22 troop trains in a day.

On the average of a train every nine and one half minutes !!!!!

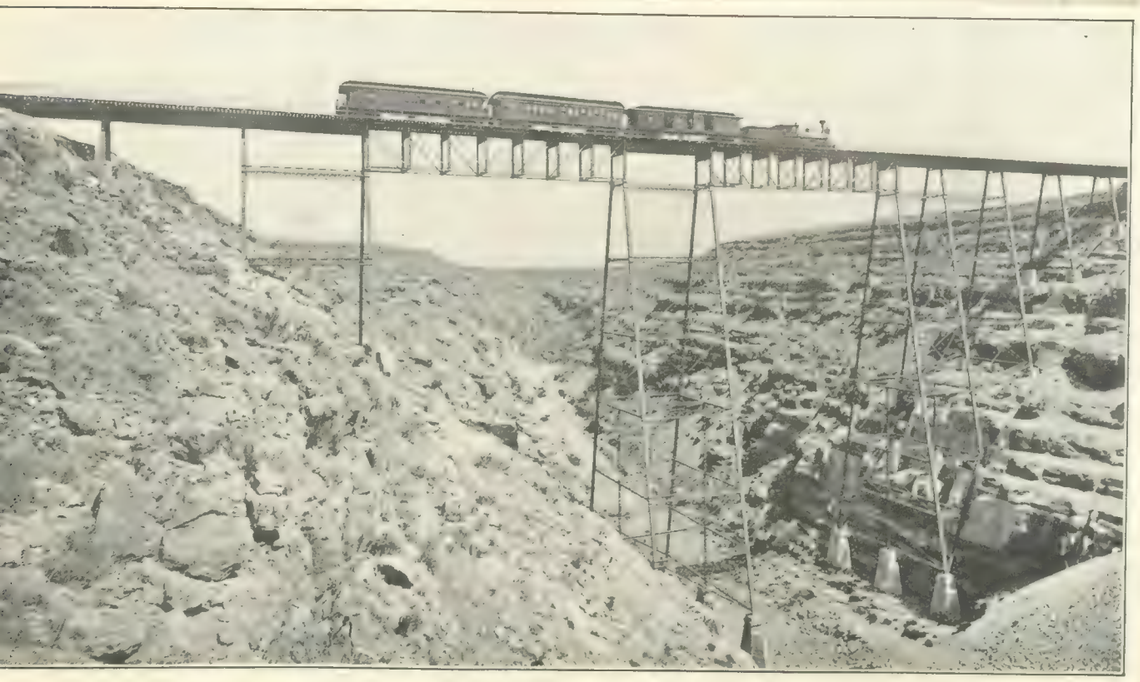
LUDLOW, CALIFORNIA in the sandy wastelands of the Mohave desert. In this view, taken about 1910, an eastbound Santa Fe train behind a 4-6-0 is approaching the station at right center. This trackage was built by the Southern Pacific in 1883, leased to the Atlantic & Pacific 1884, then to the Santa Fe in 1902. Ludlow was an important junction point; connections made with the Tonopah & Tidewater whose yard and shops are seen, along with the village, in the center area. The T&T line north to Rhyolite and Beatty is the track just above the passenger train. At far right center can be seen a train of the Ludlow & Southern, a line that went south 8 miles to Rochester. Today, little remains of this once busy spot.

The New General Office Building of the Atchison Topeka & Santa Fe Ry., at Topeka, Kan., which Was Formally Opened on April 18. 1925

SAN FRANCISCO PEAK, NEAR FLAGSTAFF, ARIZONA

Mileage of Santa Fe System Lines

State	Operated Mileage
Arizona	819.40
California	1 503.84
Colorado	644.52
Illinois	289.81
Iowa	19.99
Kansas	3 081.14
Louisiana	64.53
Missouri	309.32
Nebraska	2.53
New Mexico	1 478.70
Oklahoma	1 610.88
Texas	3 716.46
Total	13 541.12



CANYON DIABLO, ARIZ.

up the canyon at a point between Winslow and Flagstaff. The steplike ledges of Kaibab limestone at the right lie nearly horizontal. Photograph taken many years ago. Shows old-time train of Atlantic & Pacific Railroad, the predecessor of the Santa Fe Railway.

THE BUCYRUS SELF-CONTAINED, SELF-PROPELLING PILE-DRIVER AT WORK UPON THE AMERICAN DESERT.

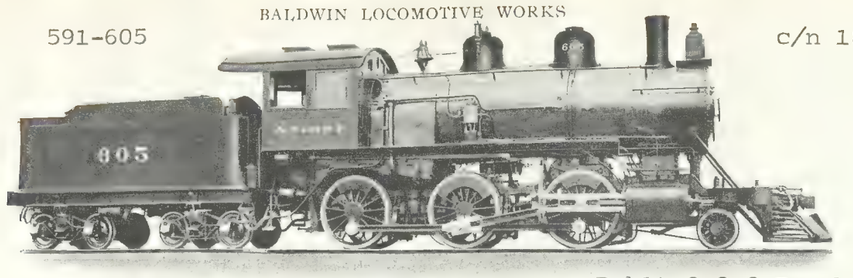
The rear vehicle carries the water and fuel supplies

From Marshall's book, *Santa Fe*

FRED HARVEY

BALDWIN LOCOMOTIVE WORKS

591-605



c/n 18742

Mogul Locomotive, 1901 Reblt 0-8-0 Topeka 1928

Class 8-34-D-134 — Code Word, RECORTE — Road No. 605

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . . . . 20″ x 28″
Valve . . . Balanced Piston
BOILER—Type . . . Wagon Top
Material . . . . . Steel
Diameter . . . . . 68″
Thickness of Sheets . . . ¾″
Working Pressure . . . 200 lbs.
Fuel . . . . Bituminous Coal
Staying . . . . . Radial
FIREBOX—Material . . . . Steel
Length . . . . . 100¾″
Width . . . . . 71¼″
Depth . front, 69″; back, 54½″
Thickness of Sheets . sides, ⅜″
back, ⅜″; crown, ⅜; tube, ½″
Water Space,
front, 4″; sides, 4″; back 3″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 12
Number, 350 . Diameter, 2″
Length . . . . . 13′ 5″

HEATING SURFACE—Firebox, 155.4 sq.ft.
Tubes . . . . 2443.4 sq.ft.
Total . . . . 2598.8 sq.ft.
Grate Area . . . 48.0 sq.ft.

DRIVING WHEELS—Diam. Outside 62″
Diameter of Center . . 56″
Journals . . . . 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter . . . . . 30″
Journals . . . . 6″ x 10″

WHEEL BASE—Driving . . 16′ 0″
Rigid . . . . . 16′ 0″
Total Engine . . . . 24′ 8″
Total Engine and Tender, 51′ 4″

WEIGHT—On Driving Wheels, 132,000 lbs.
On Truck . . . 25,100 lbs.
Total Engine . . . 157,100 lbs.
Total Engine and Tender
about . . . 257,100 lbs.

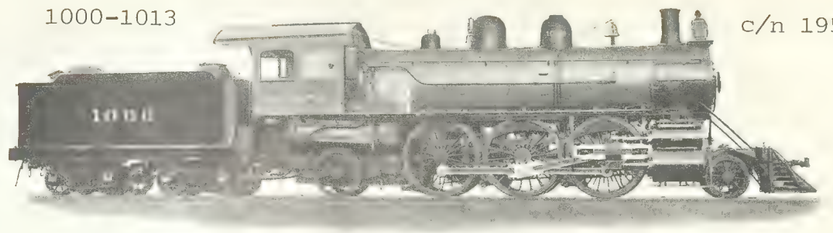
TENDER—Number of Wheels . 8
Diameter of Wheels . . 33″
Journals . . . . 5″ x 9″

TANK—Capacity . . . 5000 gals.

SERVICE—Freight.

BALDWIN LOCOMOTIVE WORKS

1000-1013



c/n 19578

Compound Prairie Type Locomotive, 1901

Class 10-$\frac{28}{58}$ $\frac{1}{4}$-D-1 — Code Word, RECORVADA — Road No. 1000

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . 17″ and 28″ x 28″
Valve . . . Balanced Piston
BOILER—Type . . . Straight
Material . . . . . Steel
Diameter . . . . . 70″
Thickness of Sheets, 11/16″ and ¾″
Working Pressure . 200 lbs.
Fuel . . . . Soft Coal
Staying . . . . . Radial
FIREBOX—Material . . . Steel
Length . . . . . 108″
Width . . . . . 71¼″
Depth front, 76⅛″; back, 67⅜″
Thickness of Sheets . sides, ⅜″
back, ⅜″; crown, ⅜″; tube; ½″
Water Space,
front, 4½″; sides, 4″; back, 4″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 11
Number, 318 . Diameter, 2¼″
Length . . . . . 19′ 0″

HEATING SURFACE—Firebox, 194.6 sq.ft.
Tubes . . . . 3543.4 sq.ft.
Total . . . . 3738.0 sq.ft.
Grate Area . . . 53.5 sq.ft.

DRIVING WHEELS—Diam. Outside 79″
Diameter of Center . . 72″
Journals . main, 10″ x 12″
others, 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter, front . . . 42¼″
Journals . . . . 6½″ x 12″
Diameter, back . . . . 49″
Journals . . . . 7½″ x 12″

WHEEL BASE—Driving . . 13′ 8″
Rigid . . . . . 13′ 8″
Total Engine . . . . 32′ 2″
Total Engine and Tender, 57′ 9″

WEIGHT—On Driving Wheels, 144,600 lbs.
On Truck, front . . 28,110 lbs.
On Truck, back . 36,500 lbs.
Total Engine . . 209,210 lbs.
Total Engine and Tender
about . . . 320,000 lbs.

TENDER—Number of Wheels . 8
Diameter of Wheels . 34¼″
Journals . . . . 5″ x 12″

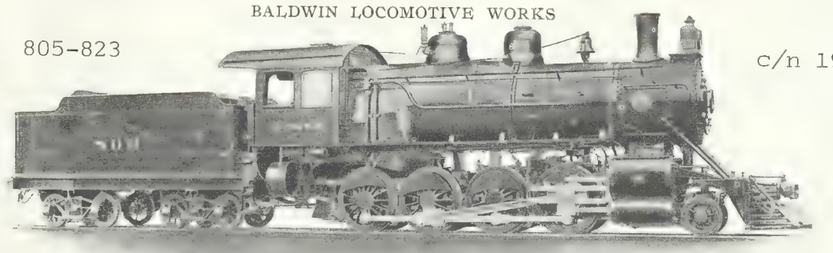
TANK—Capacity . . 6000 gals.

SERVICE—Passenger.

Guaranteed to traverse curves of 16 degrees without difficulty.

BALDWIN LOCOMOTIVE WORKS

805-823



c/n 19948

Compound Consolidation Locomotive, 1902

Class 10$\frac{28}{58}$-E-154 — Code Word, RECORVADOS — Road No. 809

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . 17″ and 28″ x 32″
Valve . . . Balanced Piston
BOILER—Type . . . Wagon Top
Material . . . . . Steel
Diameter . . . . . 68″
Thickness of Sheets, 11/16″; ¾″; 25/32″
Working Pressure . . 210 lbs.
Fuel . . . . . Coal
Staying . . . . . Radial
FIREBOX—Material . . . Steel
Length . . . . . 95¼″
Width . . . . . 71¼″
Depth . front, 73⅛″; back, 62⅛″
Thickness of Sheets . sides, ⅜″
back, ⅜″; crown, ⅜″; tube, ½″
Water Space,
front, 4½″; sides, 4″; back, 4″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 11
Number, 355 . Diameter, 2″
Length . . . . . 15′ 0″

HEATING SURFACE—Firebox, 157.3 sq. ft.
Tubes . . . . 2772.7 sq. ft.
Total . . . . 2930.0 sq. ft.
Grate Area . . . 47.4 sq. ft.

DRIVING WHEELS—Diam. Outside 57″
Diameter of Center . . 50″
Journals . . main, 9½″ x 12″
others, 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter . . . . . 30″
Journals . . . . 6½″ x 10½″

WHEEL BASE—Driving . . 15′ 4″
Rigid . . . . . 15′ 4″
Total Engine . . . . 24′ 6″
Total Engine and Tender . 54′ 2½″

WEIGHT—On Driving Wheels, 182,260 lbs.
On Truck . . . 22,450 lbs.
Total Engine . . . 204,710 lbs.
Total Engine and Tender
about . . . 315,000 lbs.

TENDER—Number of Wheels . 8
Diameter of Wheels . . 34¼″
Journals . . . . 5″ x 9″

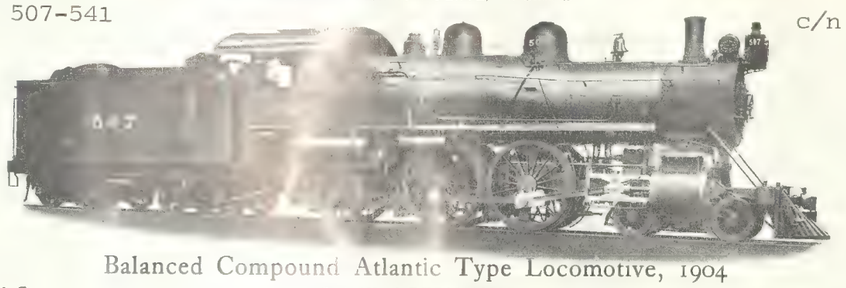
TANK—Capacity . . 6000 gals.

SERVICE—Freight.

To traverse 12 degree curves.

BALDWIN LOCOMOTIVE WORKS

507-541



c/n 24000

Balanced Compound Atlantic Type Locomotive, 1904

Class 10-24-44$\frac{1}{4}$-C-102 — Code Word, RECOSIAMOS — Road No. 507

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . 15″ and 25″ x 26″
Valve . . . Balanced Piston
BOILER—Type . . . Wagon Top
Material . . . . . Steel
Diameter . . . . . 66″
Thickness of Sheets, 11/16″ and 13/16″
Working Pressure . . 220 lbs.
Fuel . . . . . Coal
Staying . . . . . Radial
FIREBOX—Material . . . Steel
Length . . . . . 107 15/16″
Width . . . . . 66″
Depth . front, 75⅞″; back, 67⅜″
Thickness of Sheets, sides, ⅜″
back, ⅜″; crown, ⅜″; tube, 9/16″
Water Space,
front, 4½″; sides, 5″; back, 4″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 11
Number, 273 . Diameter, 2¼″
Length . . . . . 18′ 10″

HEATING SURFACE—Firebox, 190.0 sq.ft.
Tubes . . . . 3015.0 sq.ft.
Firebrick Tubes . . 10.0 sq.ft.
Total . . . . 3215.0 sq.ft.
Grate Area . . . 49.5 sq.ft.

DRIVING WHEELS—Diam. Outside 79″
Diameter of Center . . 72″
Journals . front, 10″ x 10½″
back, 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter . . . . . 34¼″
Journals . . . . 6″ x 10″

TRAILING WHEELS—Diameter . 50″
Journals . . . . 8″ x 12″

WHEEL BASE—Driving . . 6′ 10″
Rigid . . . . . 15′ 9″
Total Engine . . . . 30′ 3″
Total Engine and Tender, 59′ 6½″

WEIGHT—On Driving Wheels, 101,420 lbs.
On Truck, front . . 46,920 lbs.
Trailing Wheels . 45,420 lbs.
Total Engine . . 193,760 lbs.
Total Engine and Tender
about . . . 358,000 lbs.

TENDER—Number of Wheels . 8
Diameter of Wheels . . 34¼″
Journals . . . . 5½″ x 10″

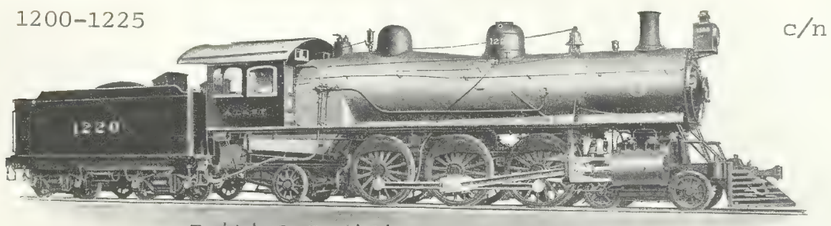
TANK—Capacity . Water, 8500 gals.

SERVICE—Passenger.

Radius of curves, 16 degrees.

BALDWIN LOCOMOTIVE WORKS

1200-1225



c/n 23055

Initial Pacific on the Santa Fe
Pacific Type Locomotive, 1903

Class 12-38$\frac{1}{4}$-D-32 — Code Word, RECORVARAS — Road No. 1220

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . . 22½″ x 28″
Valve . . . Balanced Piston
BOILER—Type . . . Wagon Top
Material . . . . . Steel
Diameter . . . . . 70″
Thickness of Sheets, 21/32″, ¾″, 25/32″
Working Pressure . . 220 lbs.
Fuel . . . . . Coal
Staying . . . . . Radial
FIREBOX—Material . . . Steel
Length . . . . . 108″
Width . . . . . 71¼″
Depth . front, 78⅝″; back, 68⅛″
Thickness of Sheets, sides, ⅜″
back, ⅜″; crown, ⅜″; tube, ½″
Water Space,
front, 4½″; sides, 5″; back, 4″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 11
Number, 290 . Diameter, 2¼″
Length . . . . . 20′ 0″

HEATING SURFACE—Firebox, 192.8 sq.ft.
Tubes . . . . 3402.2 sq.ft.
Total . . . . 3595.0 sq.ft.
Grate Area . . . 53.5 sq.ft.

DRIVING WHEELS—Diam. Outside 69″
Diameter of Center . . 62″
Journals . . main, 10″ x 12″
others, 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter, front . . . 34¼″
Journals . . . . 5½″ x 10″
Diameter, back . . . . 40″
Journals . . . . 7½″ x 12″

WHEEL BASE—Driving . . 13′ 8″
Rigid . . . . . 13′ 8″
Total Engine . . . . 33′ 9½″
Total Engine and Tender, 62′ 10½″

WEIGHT—On Driving Wheels, 147,400 lbs.
On Truck, front . . 28,600 lbs.
On Truck, back . 38,600 lbs.
Total Engine . . 214,600 lbs.
Total Engine and Tender
about . . . 350,000 lbs.

TENDER—Number of Wheels . 8
Diameter of Wheels . . 34¼″
Journals . . . . 5½″ x 10″

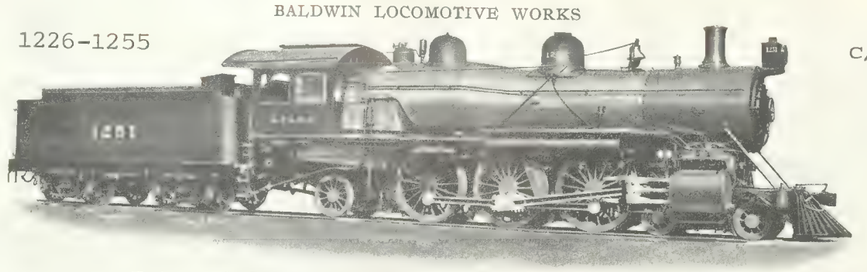
TANK—Capacity . . 7000 gals.

SERVICE—Passenger.

Radius of curves, 16 degrees.

BALDWIN LOCOMOTIVE WORKS

1226-1255



c/n 26533

Balanced Compound Pacific Type Locomotive, 1905

Class 12-28-50$\frac{1}{4}$-D-30 — Code Word, RECOSIDAS — Road No. 1251

GENERAL DIMENSIONS

GAUGE . . . . . 4′ 8½″
CYLINDERS . . 17″ and 28″ x 28″
Valve . . . Balance Piston
BOILER—Type . . . Wagon Top
Material . . . . . Steel
Diameter . . . . . 70″
Thickness of Sheets, 21/32″, ¾″, 25/32″
Working Pressure . . 220 lbs.
Fuel . . . . . Oil
Staying . . . . . Radial
FIREBOX—Material . . . Steel
Length . . . . . 108″
Width . . . . . 71¼″
Depth . front, 78¾″; back, 68¼″
Thickness of Sheets . sides, ⅜″
back, ⅜″; crown, ⅜″; tube, ½″
Water Space,
front, 4½″; sides, 5″; back, 4″

TUBES—Material . . . . Iron
Wire Gauge . . . . No. 11
Number, 290 . Diameter, 2¼″
Length . . . . . 20′ 0″

HEATING SURFACE—Firebox, 192.8 sq.ft.
Tubes . . . . 3402.2 sq.ft.
Total . . . . 3595.0 sq.ft.
Grate Area . . . 53.4 sq.ft.

DRIVING WHEELS—Diam. Outside 73″
Diameter of Center . . 66″
Journals . . main, 11″ x 10″
others, 9″ x 12″

ENGINE TRUCK WHEELS—
Diameter, front . . . 31¼″
Journals . . . . 6″ x 10″
Diameter, back . . . . 43″
Journals . . . . 7½″ x 12″

WHEEL BASE—Driving . . 13′ 8″
Rigid . . . . . 13′ 8″
Total Engine . . . . 34′ 0″
Total Engine and Tender, 66′ 1½″

WEIGHT—On Driving Wheels, 151,900 lbs.
On Truck, front . . 35,800 lbs.
On Truck, back . 39,000 lbs.
Total Engine . . 226,700 lbs.
Total Engine and Tender
about . . . 387,000 lbs.

TENDER—Number of Wheels . 8
Diameter of Wheels . . 34¼″
Journals . . . . 5½″ x 10″

TANK—Capacity . Water, 8500 gals.
Oil, 3300 gals.

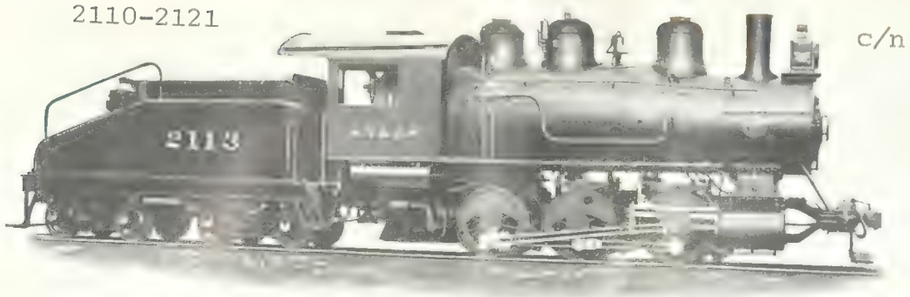
SERVICE—Passenger.

Radius of curves, 16 degrees.

125

BALDWIN LOCOMOTIVE WORKS

2110-2121



c/n 26934

Six Wheel Switching Locomotive, 1905

Class 6-34-D-300

Code Word, RECOSIDO

Road No. 2113

GENERAL DIMENSIONS

GAUGE	4′ 8½″
CYLINDERS	20″ x 26″
Valve	Balanced Piston
BOILER—Type	Wagon Top
Material	Steel
Diameter	65″
Thickness of Sheets	11/16″
Working Pressure	180 lbs.
Fuel	Bituminous Coal
Staying	Radial
FIREBOX—Material	Steel
Length	102⅛″
Width	41¼″
Depth	70½″
FIREBOX—Continued	
Thickness of Sheets	sides, ⅜″ back, ⅜″; crown, ⅜″; tube, ½″
Water Space,	front, 4½″; sides, 4″; back, 4″
TUBES—Material	Iron
Wire Gauge	No. 11
Number, 281	Diameter, 2″
Length	12′ 0″
HEATING SURFACE—Firebox	166.5 sq. ft.
Tubes	1751.5 sq. ft.
Firebrick Tubes	19.0 sq. ft.
Total	1937.0 sq. ft.
Grate Area	29.2 sq. ft.
DRIVING WHEELS—Diameter, Outside	5[illegible]
Diameter of Center	[illegible]
Journals	9″ x [illegible]
WHEEL BASE—Driving	11′ 0″
Rigid	11′ 0″
Total Engine	11′ 0″
Total Engine and Tender	41′ 11½″
WEIGHT—On Driving Wheels,	148,495 lbs.
Total Engine	148,495 lbs.
Total Engine and Tender, about	228,000 lbs.
TENDER—Number of Wheels	8
Diameter of Wheels	33″
Journals	4¼″ x 8″
TANK—Capacity	Water, 3900 gals.
SERVICE—Switching.	

BALDWIN LOCOMOTIVE WORKS

940
later 987

c/n 20326

Baldwin's first Tandem compound

Tandem Compound Decapod Locomotive, 1902

Class 12-$\frac{22}{58}$-F-1

Code Word, RECORVAN

Road No. 940

GENERAL DIMENSIONS

GAUGE	4′ 8½″
CYLINDERS	19″ and 32″ x 32″
Valve	Balanced Piston
BOILER—Type	Wagon Top
Material	Steel
Diameter	78¾″
Thickness of Sheets,	7/8″ and 15/16″
Working Pressure	225 lbs.
Fuel	Coal
Staying	Radial
FIREBOX—Material	Steel
Length	108″
Width	78′
Depth	front, 80″; back, 78″
Thickness of Sheets	sides, ⅜″ back, ⅜″; crown, ⅜″; tube, 9/16″
Water Space,	front, 4½″; sides, 4″; back, 4″
TUBES—Material	Iron
Wire Gauge	No. 11
Number, 463	Diameter, 2¼″
Length	19′ 0″
HEATING SURFACE—Firebox, 210.3 sq. ft.	
Tubes	5155.8 sq. ft.
Firebrick Tubes	23.9 sq. ft.
Total	5390.0 sq. ft.
Grate Area	58.5 sq. ft.
DRIVING WHEELS—Diam. Outside	57″
Diameter of Center	50″
Journals	main, 11″ x 12″ others, 10″ x 12″
ENGINE TRUCK WHEELS—	
Diameter	29¼″
Journals	6½″ x 10½″
WHEEL BASE—Driving	20′ 4″
Rigid	20′ 4″
Total Engine	29′ 10″
Total Engine and Tender	59′ 6″
WEIGHT—On Driving Wheels,	237,800 lbs.
On Truck	30,000 lbs.
Total Engine	267,800 lbs.
Total Engine and Tender about	400,000 lbs.
TENDER—Number of Wheels	8
Diameter of Wheels	34¼″
Journals	5″ x 9″
TANK—Capacity,	7000 gals.
SERVICE—Freight.	
Radius of Curves, 16 degrees.	

BALDWIN LOCOMOTIVE WORKS

950-984

c/n 23978

Tandem Compound Santa Fe Type Locomotive, 1904

Class 14$\frac{32}{58}\frac{1}{4}$-F-70

Code Word, RECOSERIA

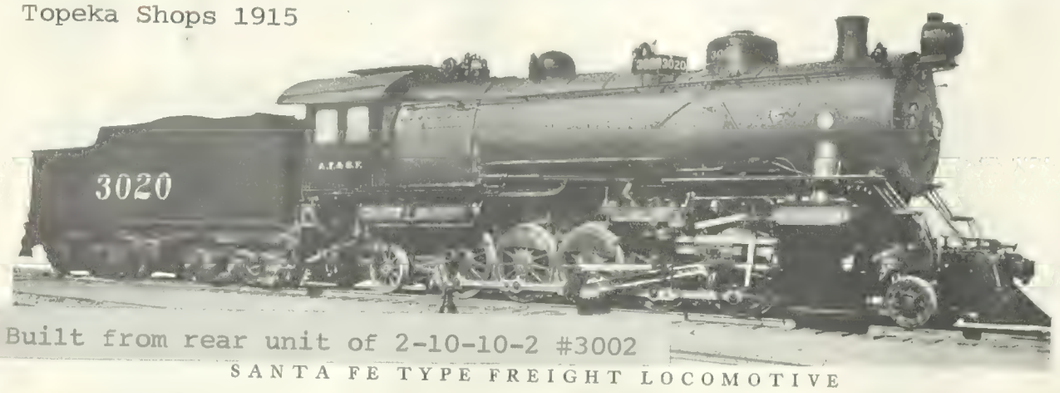
Road No. 984

GENERAL DIMENSIONS

GAUGE	4″ 8½″
CYLINDERS	19″ and 32″ x 32″
Valve	Balanced Piston
BOILER—Type	Wagon Top
Material	Steel
Diameter	78¾″
Thickness of Sheets	7/8″ and 15/16″
Working Pressure	225 lbs.
Fuel	Coal
Staying	Radial
FIREBOX—Material	Steel
Length	108″
Width	78″
Depth	front, 80¼″; back, 78¼″
Thickness of Sheets, sides,	⅜″ back, ⅜″; crown, ⅜″; tube, 9/16″
Water Space,	front, 4½″; sides, 5″; back, 4″
TUBES—Material	Iron
Wire Gauge	No. 11
Number, 391	Diameter, 2¼″
Length	20′ 0″
HEATING SURFACE—Firebox, 210.0 sq. ft.	
Tubes	4586.0 sq. ft.
Total	4796.0 sq. ft.
Grate Area	58.5 sq. ft.
DRIVING WHEELS—Diam. Outside	57″
Diameter of Center	50″
Journals	main, 11″ x 12″ others, 10″ x 12″
ENGINE TRUCK WHEELS—	
Diameter, front	29¼″
Journals	6½″ x 10½″
Diameter, back	40″
Journals	7½″ x 12″
WHEEL BASE—Driving	19′ 9″
Rigid	19′ 9″
Total Engine	35′ 11″
Total Engine and Tender,	66′ 0″
WEIGHT—On Driving Wheels, 234,580 lbs.	
On Truck, front	23,420 lbs.
On Truck, back	29,240 lbs.
Total Engine,	287,240 lbs.
Total Engine and Tender about	450 000 lbs.
TENDER—Number of Wheels	8
Diameter of Wheels	34¼″
Journals	5½″ x 10″
TANK—Capacity	8500 gals.
SERVICE—Freight.	
Radius of curves, 16 degrees.	

ATCHISON, TOPEKA AND SANTA FE RAILWAY

Topeka Shops 1915



Built from rear unit of 2-10-10-2 #3002

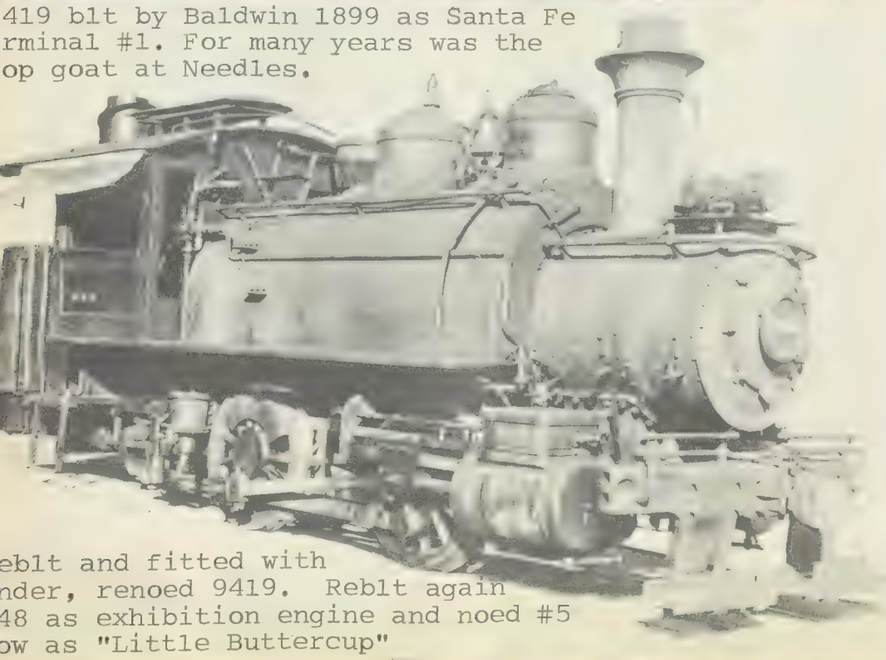
SANTA FE TYPE FREIGHT LOCOMOTIVE

31 Locomotives like the above are being fired by Duplex Stokers

Cylinders	28 x 32 in.
Driving wheels, diameter	57 in.
Steam pressure	200 lbs.
Boiler diameter	81 in.
Tubes, length	18 ft.—10⅛ in.
" number	38—5½ in.
" "	212—2¼ in.
Heating surface, tubes	2,353 sq. ft.
" " fire box	256 sq. ft.
" " arch tubes	81 sq. ft.
" " total	2,690 sq. ft.
" " superheater	950 sq. ft.
Fire box	109⅝ x 78¾ in.
Grate Area	59.5 sq. ft.
Wheel base, driving	19 ft.—9 in.
" " engine	35 ft.—10 in.
" " " and tender	76 ft.—7⅝ in.
Weight, leading	21,400 lbs.
" driving	248,900 lbs.
" trailing	25,600 lbs.
" engine	295,900 lbs.
" tender	284,460 lbs.
Tender capacity, water	12,000 gals.
" " coal	22 tons
Maximum tractive power	63,600 lbs.
Factor of adhesion	3.9

Rebl t Topeka 1929

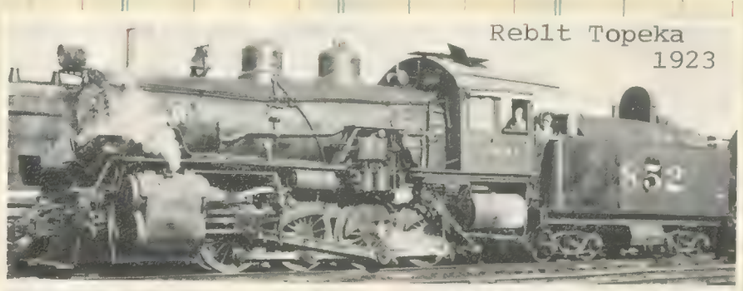
419 blt by Baldwin 1899 as Santa Fe
rminal #1. For many years was the
op goat at Needles.



ebl t and fitted with
nder, renoed 9419. Rebl t again
48 as exhibition engine and noed #5
ow as "Little Buttercup"

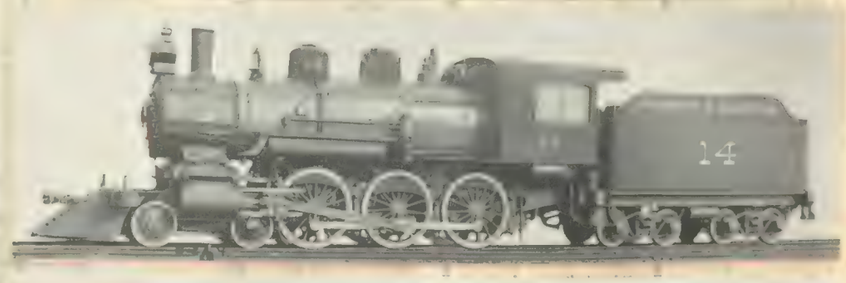
Blt by Baldwin 1901 (2-6-0)
Rebl t Topeka 1927

SANTA FE'S ENGINE 567 AT CHILLICOTHE, ILL.



Rebl t Topeka
1923

blt Baldwin 1902



Records are a bit confusing in regard to this old girl. Builders photo shows her as Phoenix & Eastern #14. Brooks construction records show three engines noed 14-16, c/n 27602-04, built in Nov 1903 for the Santa Fe, Prescott & Phoenix. However, Santa Fe roster lists these engs as Arizona & California 14-16 renoed AT&SF 2433-2435!!!

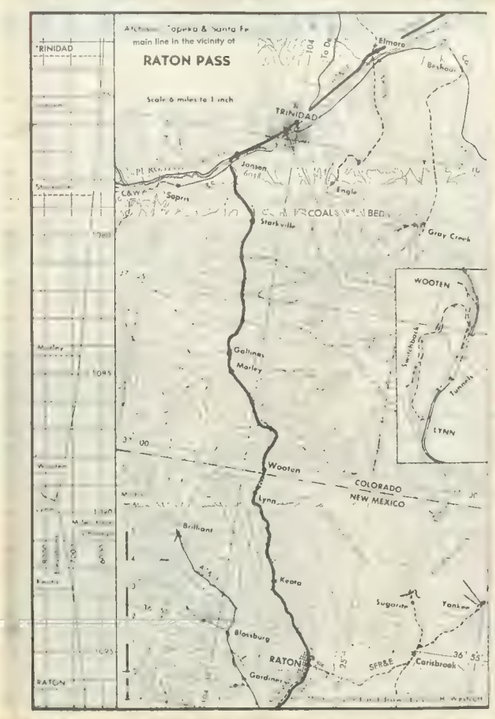
Rail Photo Service: George C. Corey.

AS A RULE, Santa Fe dispatches its tonnage over the Southern District through Texas and leaves the stiffer 3-per-cent-plus grades of Raton Pass to the streamliners — but floods of 1951 rerouted freight, produced such spectacular scenes as this one.

Baldwin twins talk it up on Raton

FISHERS PEAK, NEAR TRINIDAD, COLO.

This peak and mesa are a prominent feature of Raton Mesa, consisting of a thick bed of lava which covers nearly horizontal beds of coal measures of the Raton formation. Santa Fe Railway in shale valley in foreground.



Preston George.

Freight is the real problem over the pass. Above, going downhill over curves between Wooten and Morley. Below,

127

Santa Fe 3874 and 3822, 2-10-2 Types, doubleheading an eastward extra in the early morning down Raton Pass west of Trinidad, Colo. The grade is now only 1.3%. Fischer's Peak is in the background on the First District of the N.M. Division. Photo by Otto C. Perry.

Number 3851, an Atchison, Topeka & Santa Fe 2-10-2, brings up the rear of a freight train consisting of approximately 45 cars on the tough grade out of Raton, New Mexico. The July calendar scene shows the front portion of this train—with another 2-10-2, Number 3904, on the point.

Preston George

CIVILIAN PASSENGER TRAFFIC BOOMED TOO in the war, and Santa Fe, for one, was hard pressed to find enough locomotives. Here the 4-8-4 of the westbound *Chief* is assisted up Raton Pass, N. Mex., in 1944 by No. 1797, one of ~~six~~ 3 Mallets the road was lucky enough to purchase from Norfolk & Western.

The eastbound CHIEF near Lynn with two 2-10-2's and a 4-8-4

Preston George.

Many combinations of motive power are used at Raton. Here near Lynn, N. Mex., in April, 1944, the Chief had an ex-N&W 2-8-8-2 and a 2-10-2 Santa Fe type. In March this year it was headed with two 2-10-2's and a 4-8-4 below.

Easter morning, 1944. #19, the Chief, descending Raton Pass just west of Lynn, New Mexico. The tower at that point and the helper that assisted #19 up the pass and has just been cut off may be seen in the distance. Photo by Otto C. Perry.

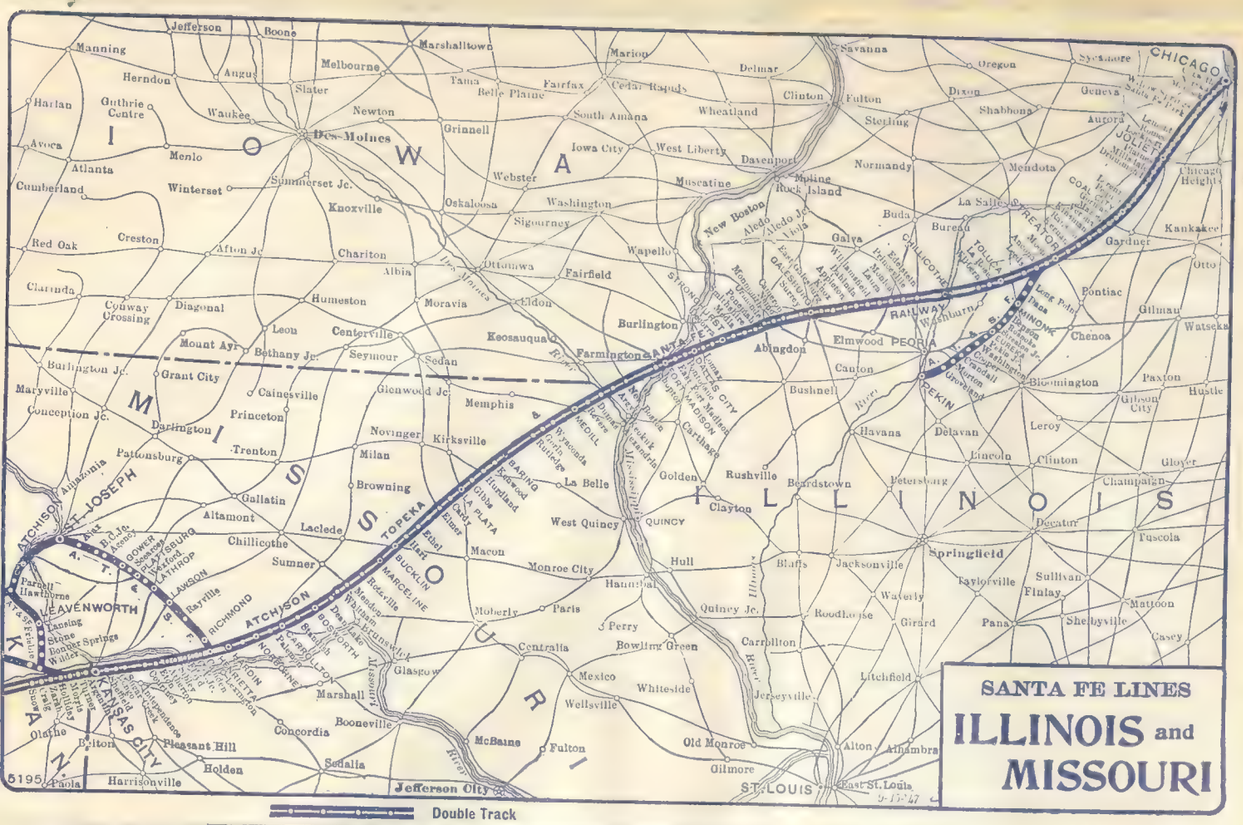
Engine 3767, 4-8-4 Type Santa Fe 3765 Class, descending the east slope of Raton Pass near Jansen, Col., with Fischer's Peak in the background, hauling #20, the Chief. Photo by Otto C. Perry.

Denver & Rio Grande Western may have the highest crossing of the Rocky Mountains (9239 feet), but Santa Fe has the steepest at Raton Pass, on the Chicago-Los Angeles main line. Eastbound trains hit a maximum grade of 3.3 per cent; westbound, the maximum is 3.5 per cent. Such inclines call for four engines on medium-length freight trains, two at the front and two at the rear. This train is eastbound through the twin-bore tunnel.

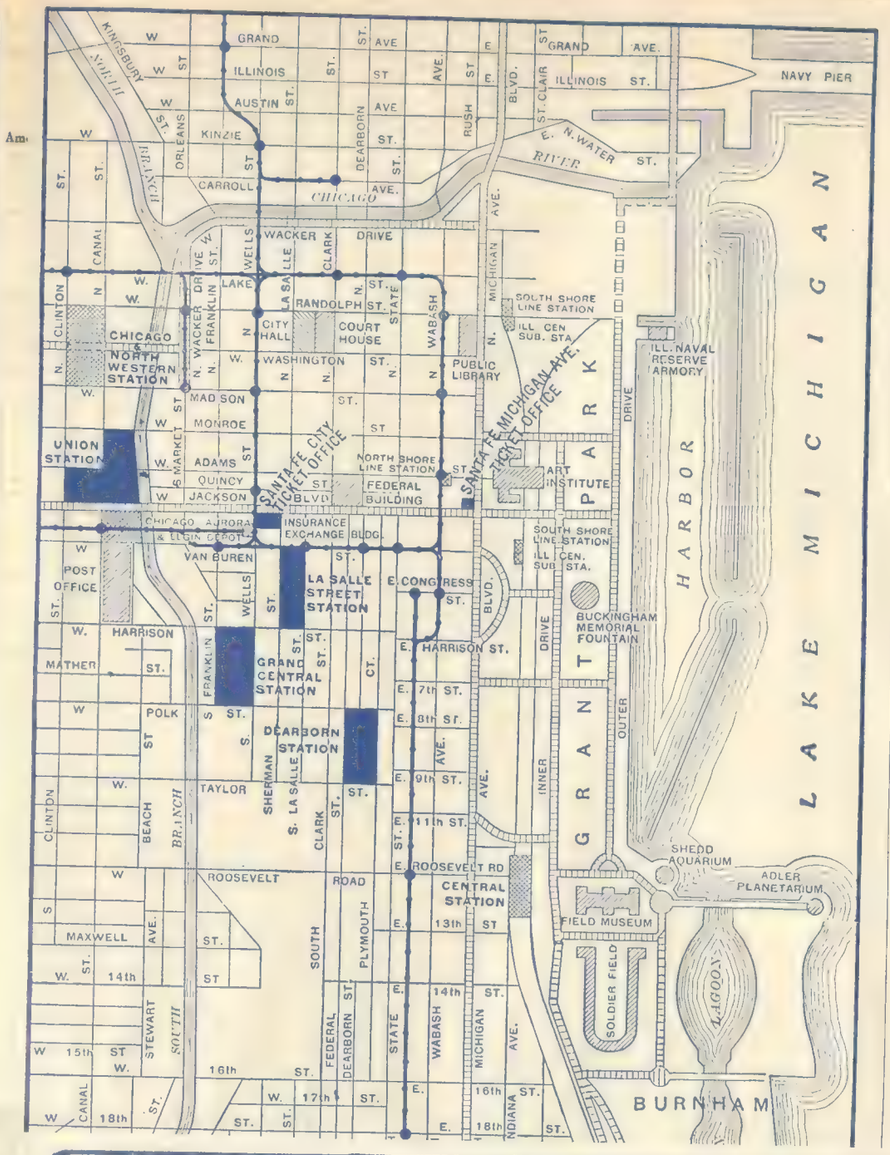
—On the Eastbound Ascent to Raton Summit

Raton Pass, 7573 feet above sea level, is the highest point on the Santa Fe. On the route of most of its transcontinental streamliners, its steep 3.5-percent grades require helper engines on both passenger and freight trains *(above)*. Part of the old Santa Fe Trail, the route over Raton Mountain was the only practical route from Colorado into central New Mexico. In 1878, when both the Santa Fe and the narrow-gauge Denver & Rio Grande were in southern Colorado, headed for Santa Fe, at 4 a.m. one late-winter morning the Santa Fe's forces began grading a line up the pass only a few hours ahead of the Rio Grande workers, and the pass was theirs. (In their next encounter, a brawl a year later over which road should build through the narrow Grand Canyon of the Arkansas west of Pueblo, Colo., both sides used their Colts and Winchesters as well as their lawyers and engineers; this time the Rio Grande won.) Until a 2000-foot tunnel *(left)* was bored at the summit in 1879, the line crawled over the mountain on a series of switchbacks on 6-percent grades. The view is through the east portal, looking from New Mexico into Colorado; the boundary marker is just beyond the semaphore. *(Santa Fe photos)*

129



New Line Near the Lower End of Thurston Canyon—Portion of Old Embankment on the Opposite Side of the Creek, at the Left



Chicago Passenger Stations and tenant railroad lines

Dearborn Station
Polk and Dearborn Sts.

Santa Fe
Chicago & Eastern Illinois.
Chicago & Western Indiana.
Erie.
Grand Trunk.
Monon.
Wabash.

C. & N. W. Terminal
Madison and Canal Sts.

1 and 2/10 miles from Dearborn Station.
Chicago & North Western.

Grand Central Station
Harrison and Wells Sts.

3/10 mile from Dearborn Station.
Baltimore & Ohio.
Chicago Great Western.
Pere Marquette.
Soo Line.

Central Station
Roosevelt Road and Michigan Ave.

8/10 mile from Dearborn Station.
Big Four.
Illinois Central.
Michigan Central.

La Salle St. Station
La Salle and Van Buren Sts.

1/2 mile from Dearborn Station.
New York Central.
Nickel Plate.
Rock Island.

Union Passenger Station
Canal, Adams, Jackson and Clinton Sts.

1 mile from Dearborn Station.
Burlington Route.
Chicago, Milwaukee, St. Paul & Pacific.
Gulf, Mobile & Ohio R. R. (The Alton Route)
Pennsylvania Lines.

SANTA FE LINES
KANSAS and OKLAHOMA
Double Track
5196
9-15-47
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
ATCHISON
TOPEKA & SANTA FE
A. T. & S. F.
K. C. MEXICO & ORIENT
GULF, COLORADO & SANTA FE
ST. JOSEPH
KANSAS CITY
TULSA
OKLAHOMA CITY
GUTHRIE
SHAWNEE
ARKANSAS CITY
WICHITA FALLS
HENRIETTA
DENISON
ELKHART
HUTCHINSON
McALESTER
ATOKA
ANTLERS
WILBURTON
WISTER
TUSKAHOMA
Abilene
Salina
Hutchinson
Wichita
Arkansas City
Ponca City
Enid
Guthrie
Shawnee
Oklahoma City
Chickasha
Lawton
Duncan
Ardmore
Madill
Durant
Denison
Sherman
Gainesville
Wichita Falls
Henrietta
Vernon
Paducah
Childress
Clarendon
Shamrock
Amarillo
Pampa
Borger
Perryton
Dalhart
Texhoma
Boise City
Guymon
Liberal
Hugoton
Elkhart
Hooker
Dickens
Spur
Post
Lubbock
Plainview
Floydada
Silverton
Memphis
Hedley
Quanah
Chillicothe
Vernon
Crowell
Foard City
Truscott
Benjamin
Knox City
Seymour
Throckmorton
Graham
Jacksboro
Bowie
Decatur
Fort Worth
Cleburne
Waco
Temple
Belton
Gatesville
Killeen
Brownwood
Coleman
Santa Anna
Ballinger
Eastland
Cisco
Abilene
Sweetwater
Roscoe
Colorado
Big Spring
Stanton
Midland
Odessa
Andrews
Seminole
Denver
Colorado Springs
Pueblo
Trinidad
La Junta
Rocky Ford
Lamar
Holly
Springfield
Las Animas
Hugo
Limon
Burlington
Seibert
Cheyenne Wells
Kit Carson
Eads
Tribune
Scott City
Sharon Springs
Wallace
Goodland
Colby
Oakley
Hill City
Selden
Norton
Phillipsburg
Mankato
Lenora
Jamestown
Stockton
Beloit
Clay Center
Garrison
Manhattan
Onaga
Goff
Seneca
Sabetha
Hiawatha
Marysville
Hanover
Washington
Irving
Frankfort
Blue Rapids
Waterville
Oketo
Alma
Eskridge
Bradford
Harveyville
Osage City
Burlingame
Carbondale
Lyndon
Overbrook
Rantoul
Ottawa
Garnett
Iola
Humboldt
Chanute
Erie
Girard
Pittsburg
Columbus
Joplin
Parsons
Oswego
Independence
Coffeyville
Cherryvale
Neodesha
Fredonia
Yates Center
Eureka
Howard
Severy
Madison
Virgil
Emporia
Strong City
Cottonwood Falls
Florence
Marion
Peabody
Newton
Sedgwick
Halstead
Burrton
Hesston
McPherson
Lindsborg
Salina
Solomon
Abilene
Enterprise
Herington
Council Grove
Dwight
Alta Vista
Wamego
Belvue
Maple Hill
Wabaunsee
Paxico
Topeka
Silver Lake
Rossville
Willard
Tecumseh
Lecompton
Perry
Meriden
Lawrence
Baldwin
Ottawa
Ozawkie
Valley Falls
Oskaloosa
Winchester
Leavenworth
Fort Leavenworth
Lansing
Kansas City
Bonner Springs
Edwardsville
Argentine
Turner
Armourdale
Wyandotte
Rosedale
Quindaro
Muncie
Tonganoxie
Basehor
Linwood
Easton
Bucklin
Ashland
Englewood
Kiowa
Medicine Lodge
Sun City
Coldwater
Protection
Wilmore
Belvidere
Kinsley
Offerle
Spearville
Ford
Dodge City
Cimarron
Minneola
Ingalls
Montezuma
Copeland
Ensign
Meade
Sublette
Satanta
Hugoton
Rolla
Elkhart
Feterita
Liberal
Tyrone
Guymon
Hooker
Texhoma
Beaver
Buffalo
Laverne
Fargo
Gate
Forgan
Beaver
Turpin
Goodwell
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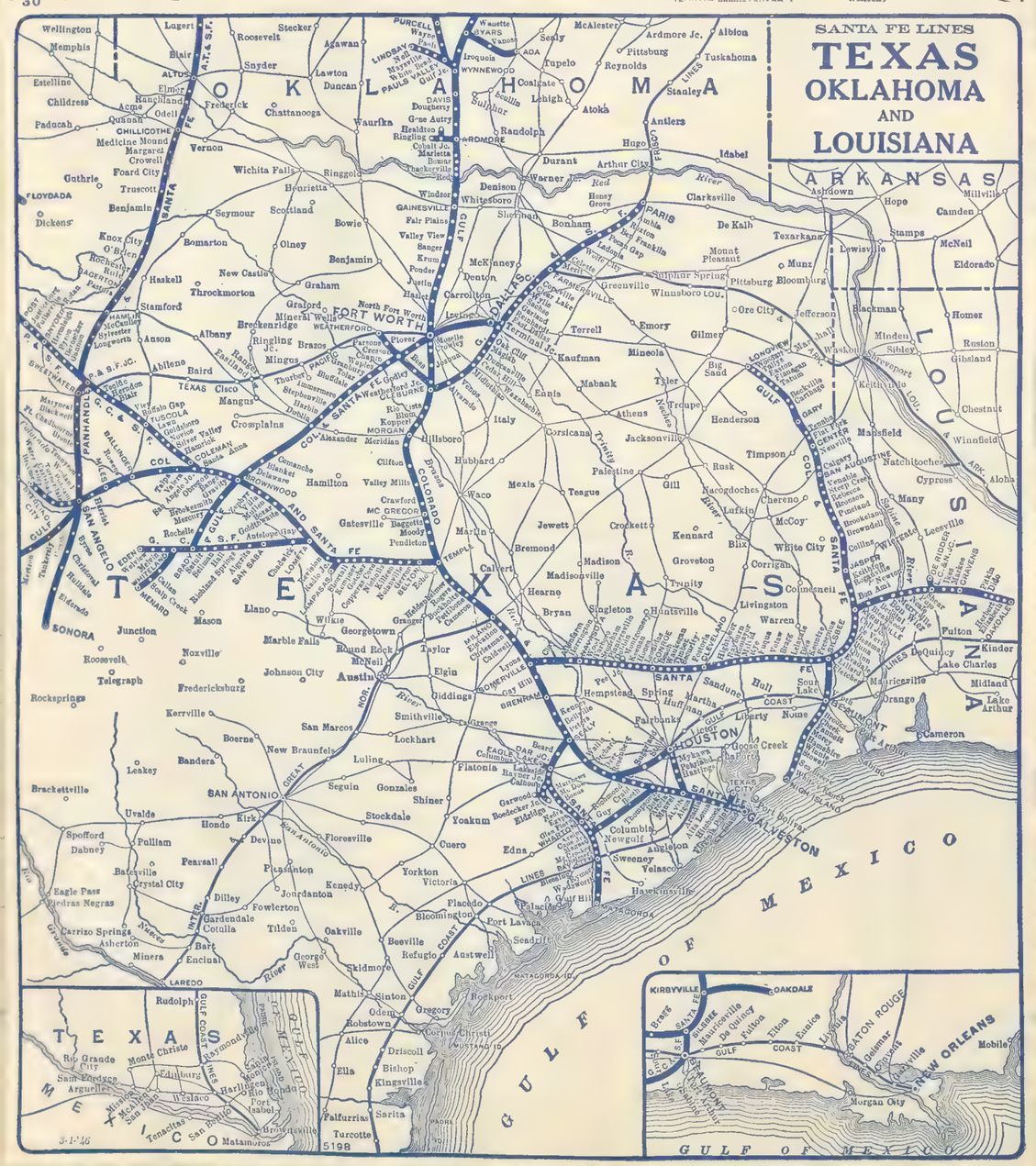
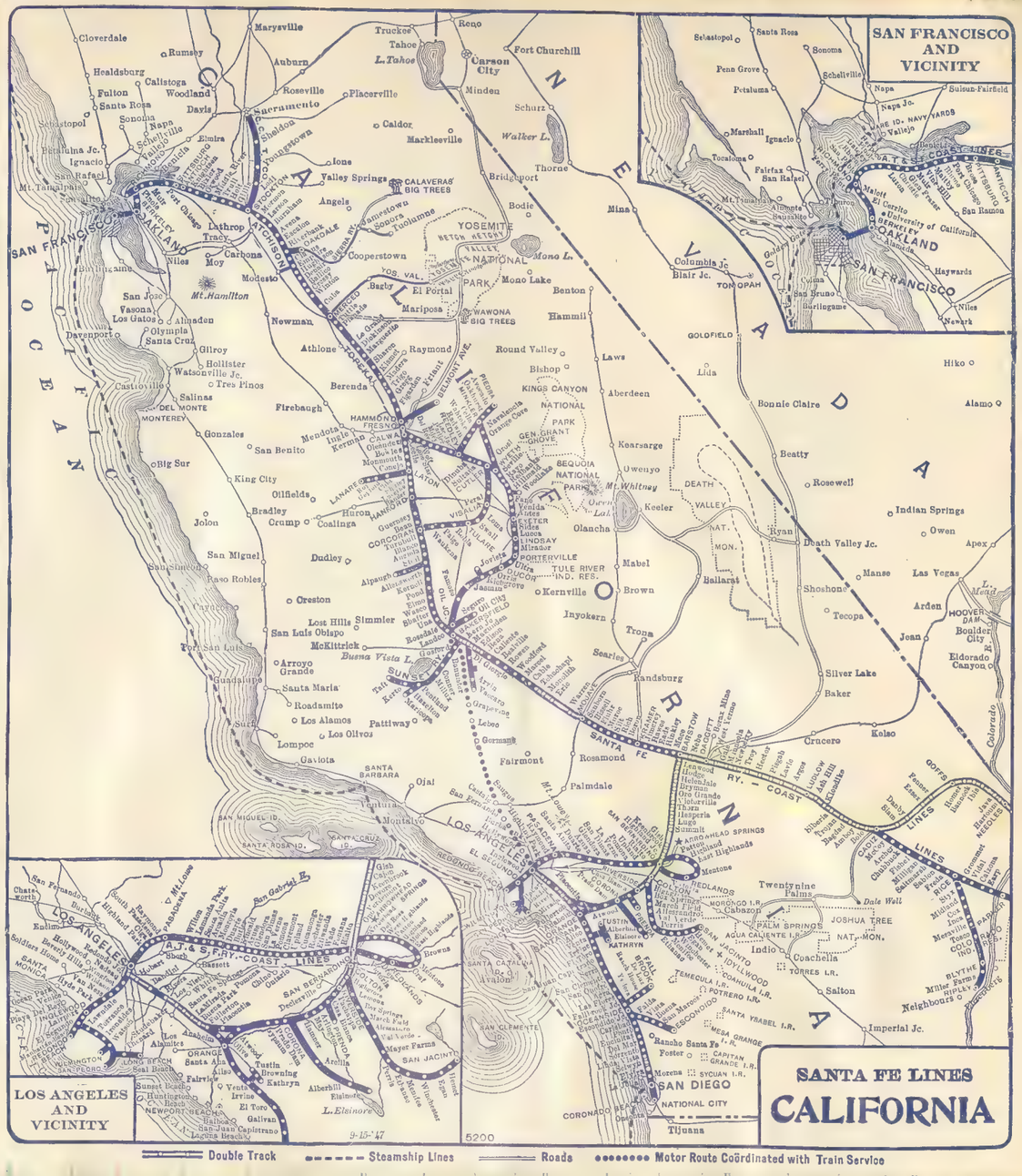
Laverne
Fargo
Gate
Forgan
Turpin
Goodwell





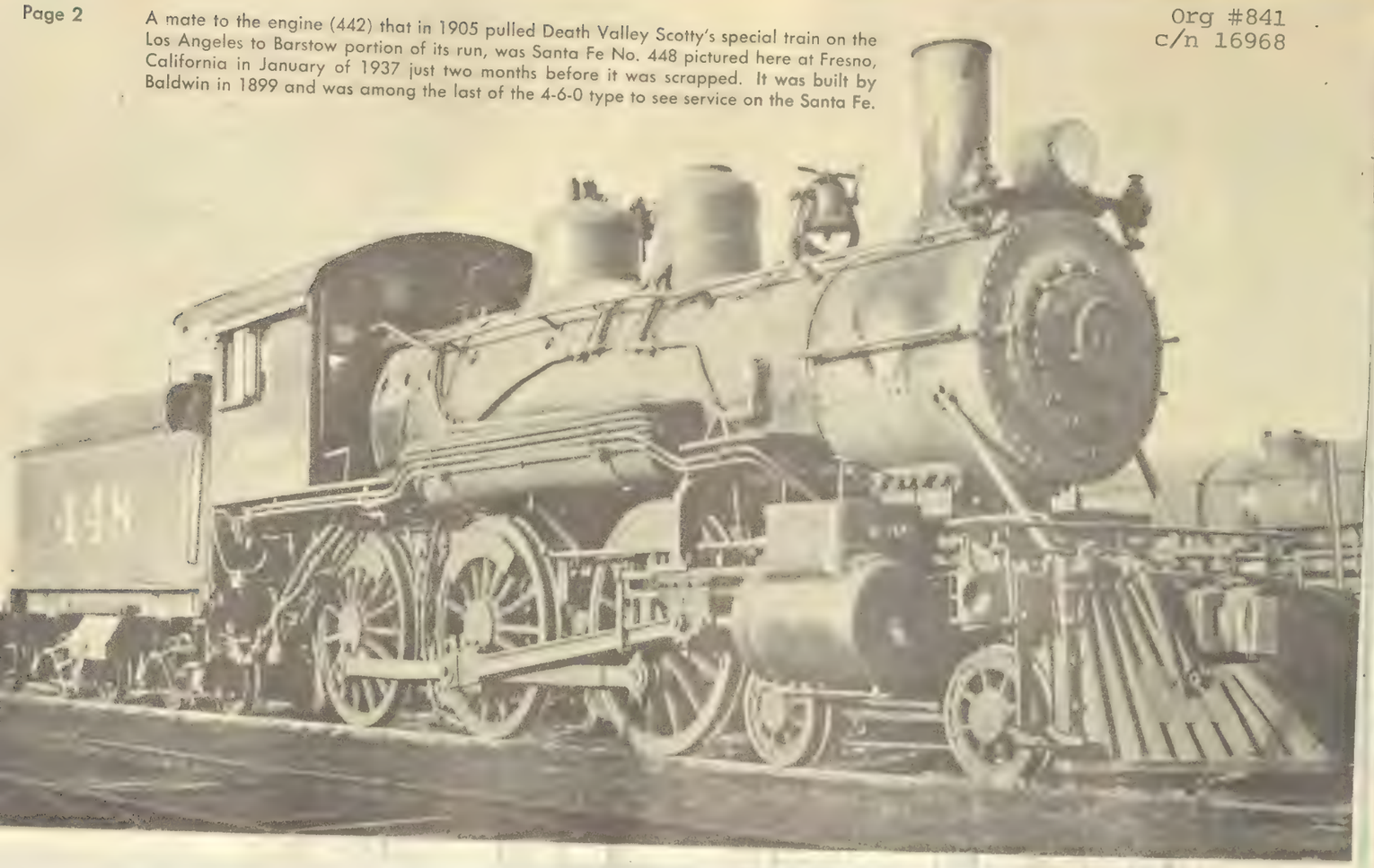
New second track .. Arizona ,, 1923

The New and Old Lines at the Head of Kingman Canyon

Near the Lower End of Nelson Canyon. New Uphill Track on the Left. Re-located Downhill Track on the Right

A mate to the engine (442) that in 1905 pulled Death Valley Scotty's special train on the Los Angeles to Barstow portion of its run, was Santa Fe No. 448 pictured here at Fresno, California in January of 1937 just two months before it was scrapped. It was built by Baldwin in 1899 and was among the last of the 4-6-0 type to see service on the Santa Fe.

Org #841
c/n 16968



The 825 was blt by Dickson in 1899 as a 4-4-2. Proved unsatisfactory and was reblt at Topeka in 1904 to 4-6-0. Renoed 457.

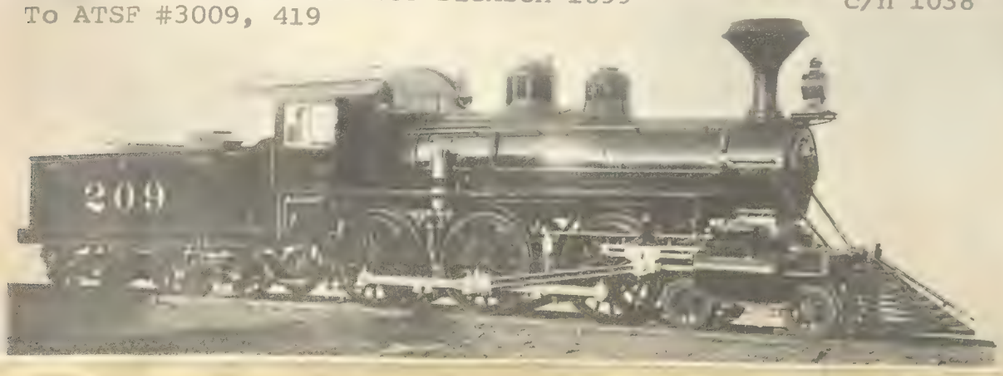
Santa Fe 547-552
Manchester 1887
Renoed 767,319

HAULING MATERIAL FOR NEW TRACK OF CHICAGO, SANTA FE & CALIFORNIA RAILROAD IN 1887

Locomotive 547 of the Santa Fe was built by the Manchester Locomotive Works and was used in hauling material for the new road from Fort Madison to Chicago. This photograph, taken at Streator, Ill., shows Jerry Faulkner as engineer, Brother Hugh Gallagher, fireman, who submitted the picture, George Clegg, conductor, and Edward Smith.

Santa Fe Pacific 200-209 Dickson 1899
To ATSF #3009, 419

c/n 1038



C

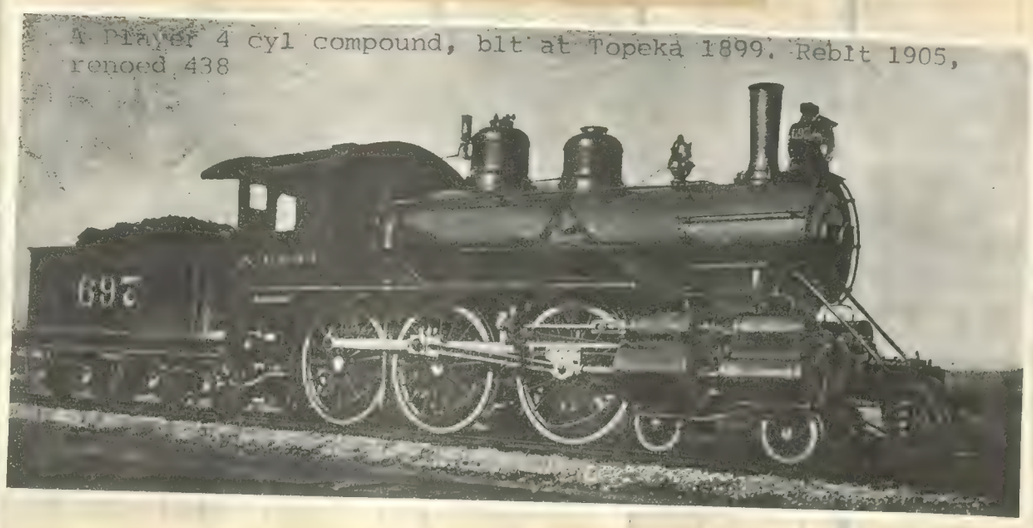
Clo

Amount

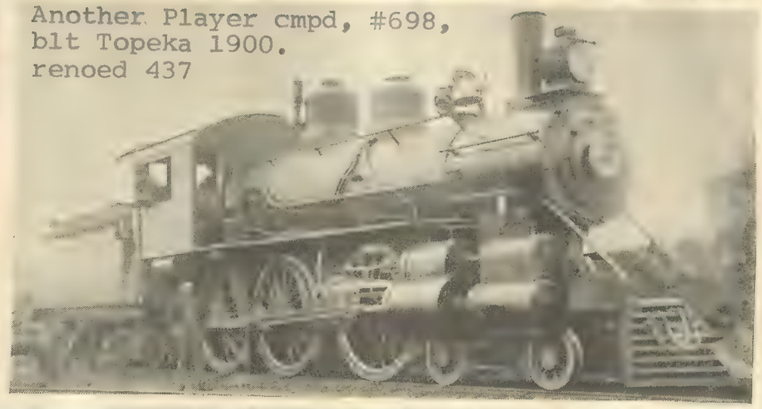
Clos. No. Sold Amount

221-245 Schen 1891
Org Nos 762,552

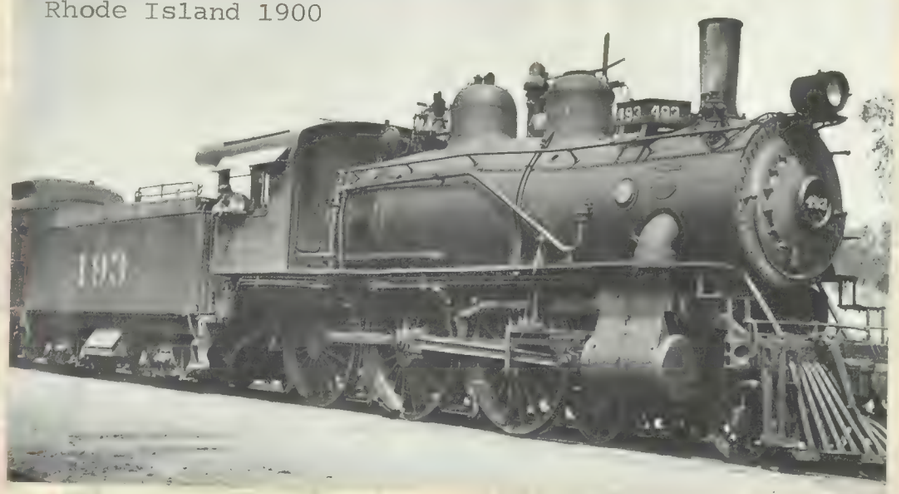
A Player 4 cyl compound, blt at Topeka 1899. Rebit 1905, renoed 438



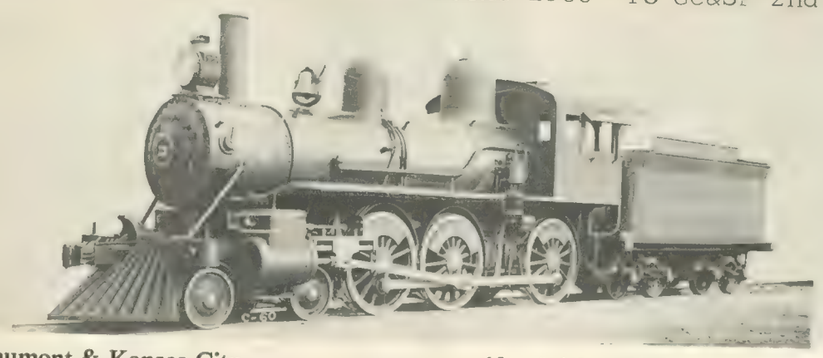
Another Player cmpd, #698,
blt Topeka 1900.
renoed 437



488-497
Rhode Island 1900

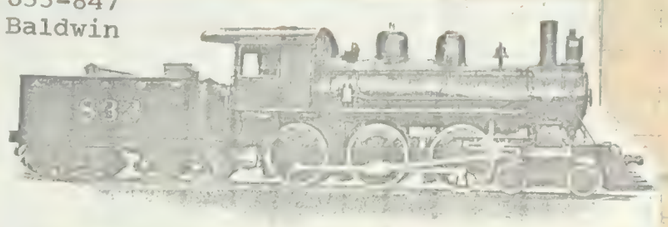


12-14 c/n 2516 Cooke 1900 To GC&SF 2nd 144



Gulf, Beaumont & Kansas City 13 4-6-0 1900

833-847
Baldwin



TEN WHEEL LOCOMOTIVE. 1899

began

H. L. Kelso

One of the Santa Fe's famed 2-10-2s, No. 3876, takes the long grade out of Mojave with a rush, pulling a 10-car passenger instead of the more usual freight. She'll have no trouble with this assignment over Tehachapi Pass. Top speed allowance for the 3800s is 55 mph.

Up the Tehachapi.

With two Santa Fe type (2-10-2) engines on the front and one on the rear, Santa Fe freight train Extra 3842 West climbs the 2.3 per cent grade west of Mohave into the Tehachapi Mountains. The line over the mountains between Mohave and Bakersfield was built by the Southern Pacific in 1876 and has been used jointly by the two roads since 1898, when the Santa Fe extended its lines into Central California. To gain the necessary elevation on the west side of the range, engineer William Hood designed the famous Tehachapi Loop which tunnels into the side of a ridge, twists around the crest of a peak, and then crosses over itself to gain 77 feet of elevation and thus bring the line into position for easy grades to the summit. This line is the original SP connection between Los Angeles and San Francisco and the present San Joaquin Valley line. The Santa Fe operates a bus connection from Los Angeles to Bakersfield, shortcutting Tehachapi and Cajon.

F. C. [illegible] 1231 N. Robles Ave., Pasadena, Calif.

On the Tehachapi loop

Uphill tonnage near Caliente, Calif.

Jim Morley.

Santa Fe freight up the Tehachapi passes SP Daylight.

H. L. Kelso

SANTA FE DOUBLE-HEADER PULLED BY TWO 3800-CLASS [illegible]NGINES AT MOJAVE, CAL.

Thunder of a double header wakes up the [illegible]

133

Preston R. George

Santa Fe 2508 (ex-KCM&O 52) climbs a 1% grade 20 miles north of Altus, Okla. on the Orient line with 24 cars, November 21, 1944. Eng 2509(ex KCM&O 53) blt by Schen 1908 as New York Central #2929 cn 45187

Combination Mail and Baggage Trailer Built by The J. G. Brill Co. 1925

E

Cooke 1907
c/n 41225

The K.C.M.& O. purchased by Santa Fe 1929

Number 505 heading a passenger train southbound for Alpine, Tex. Engine foreman, *at far left*, is Tom Chambers, tropical boomer who landed on the K-CM&O in 1914

Pittsburgh 1909 c/n 48538

To ATSF #2540, reboilered 192-
Sold to KCMO of Mexico 1947

OLD KANSAS CITY, MEXICO & ORIENT LOCOMOTIVE 206 WITH CREW, IN 1913

Baldwin 1925 c/n 58574 to ATSF #2568

801-805

Another former N.Y.C. [#2936] Schen 1908 to KCM&O #54, to SF 2510

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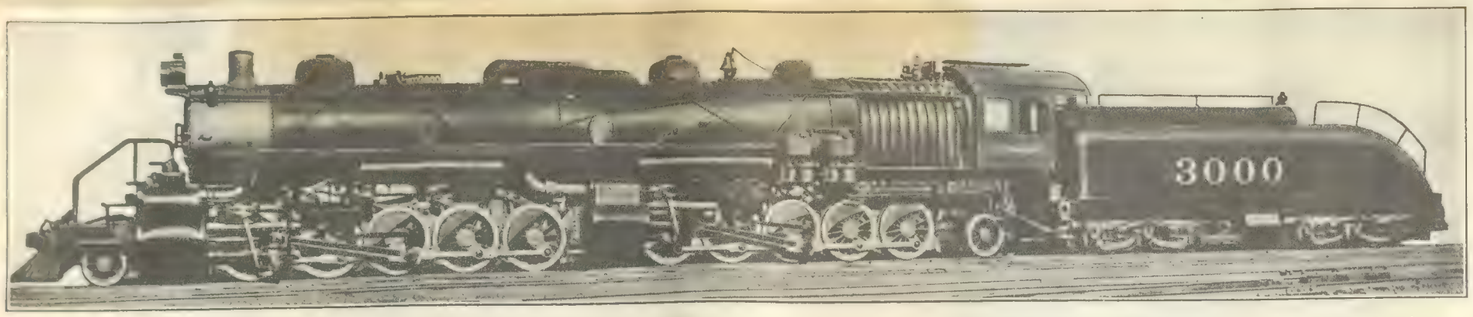


Fig. 109—Mallet Articulated (2-10-10-2) Compound Locomotive for Freight Service. Built by the Atchison, Topeka & Santa Fe and the Baldwin Locomotive Works.

The "Largest Locomotive in the World" when constructed in 1911 and the first 2-10-10-2 type. Bisected in 1917; front unit to 2-10-2 #3014 and rear to 2-10-2 #3024.

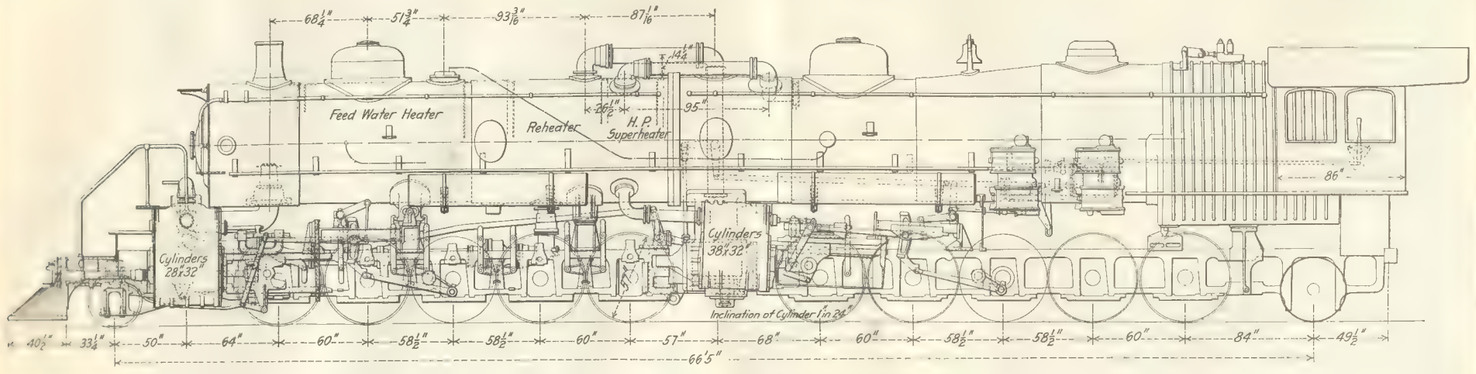


Fig. 142—Mallet Articulated (2-10-10-2) Compound Locomotive. Built by the Atchison, Topeka & Santa Fe and the Baldwin Locomotive Works.

GENERAL DATA.

Gage	4 ft. 8½ in.
Fuel	Oil
Tractive Effort	111,000 lbs.
Weight in Working Order	616,000 lbs.
Weight on Drivers	550,000 lbs.
Weight of Engine and Tender in Working Order	850,000 lbs.
Wheel Base, Driving	19 ft. 9 in. and 19 ft. 9 in.
Wheel Base, Total	66 ft. 5 in.
Wheel Base, Engine and Tender	108 ft. 1⅝ in.

RATIOS.

Weight on Drivers ÷ Tractive Effort	4.95
Total Weight ÷ Tractive Effort	5.55
Tractive Effort × Diameter Drivers ÷ Heating Surface	963.00
Tractive Effort × Diameter Drivers ÷ Equivalent Heating Surface*	710.00
Total Heating Surface ÷ Grate Area	80.40
Total Equivalent Heating Surface* ÷ Grate Area	109.00
Firebox Heating Surface ÷ Equivalent Heating Surface,* per cent.	3.30
Weight on Drivers ÷ Total Heating Surface	83.60
Weight on Drivers ÷ Equivalent Heating Surface*	61.70
Total Weight ÷ Total Heating Surface	93.70
Total Weight ÷ Equivalent Heating Surface*	69.10
Volume Both Cylinders, cu. ft.	30.10
Total Heating Surface ÷ Volume Cylinders	219.00
Equivalent Heating Surface* ÷ Volume Cylinders	296.00
Grate Area ÷ Volume Cylinders	2.72

CYLINDERS.

Kind	Compound
Diameter and Stroke	28 in. and 38 in. x 32 in.

VALVES.

Kind	Piston
Diameter	13 in. and 15 in.

WHEELS.

Driving, Diameter Over Tires	57 in.
Driving Journals, Main, Diameter and Length	11 in. x 12 in.
Driving Journals, Others, Diameter and Length	10 in. x 12 in.
Engine Truck, Journals	6½ in. x 10½ in.
Trailing Truck, Journals	7½ in. x 11⅞ in.

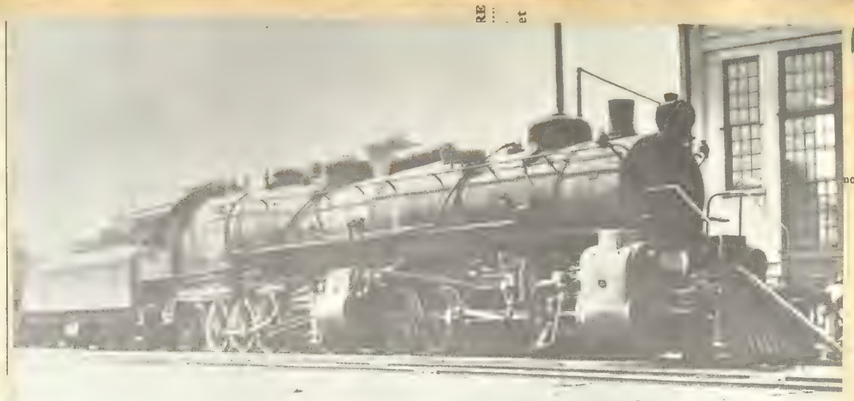
BOILER.

Style	Ext. Wagon Top
Working Pressure	225 lbs.
Firebox, Length and Width	149⅝ in. x 78¾ in.
Tubes, Number and Outside Diameter	377—2¼ in.
Tubes, Length	16 ft. 5 in.
Heating Surface, Tubes	3,625 sq. ft.
Heating Surface, Firebox	295 sq. ft.
Heating Surface, Feed Water Heater	2,659 sq. ft.
Heating Surface, Total	6,579 sq. ft.
Superheater Heating Surface	2,328 sq. ft.
Equivalent Heating Surface*	8,907 sq. ft.
Grate Area	81.9 sq. ft.

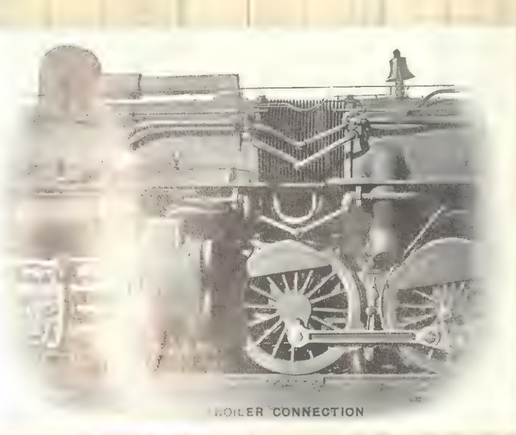
TENDER.

Tank	Water Bottom
Frame	12 in. and 15 in. channels
Wheels, Number	12
Wheels, Diameter	34¼ in.
Journals, Diameter and Length	5½ in. x 10 in.
Water Capacity	12,000 gals.
Oil Capacity	4,000 gals.

*Equivalent Heating Surface Equals Total Heating Surface plus Reheating and Superheater Heating Surface.



3009



BOILER CONNECTION

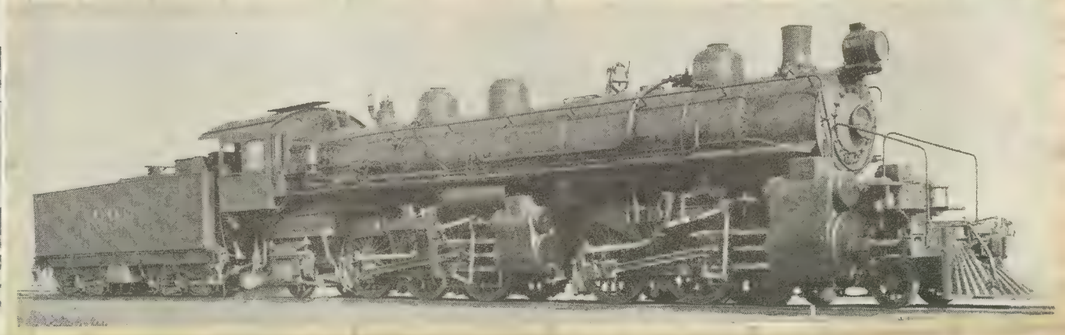
3000-3009

S. R. Wood

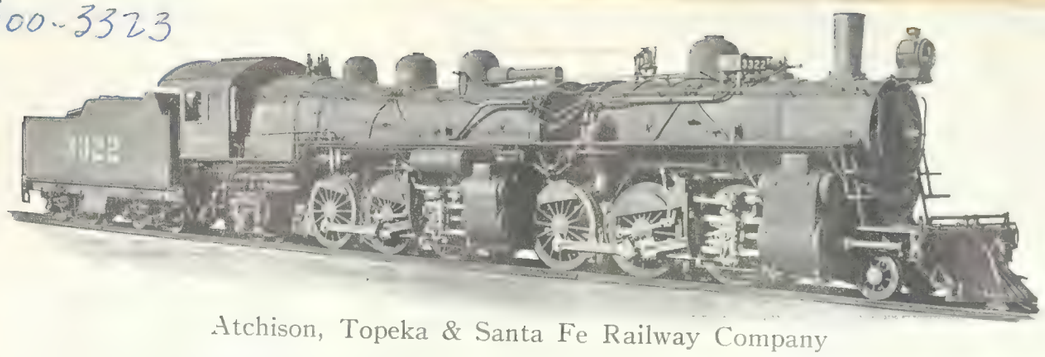
ENGINE 3009 OF SANTA FE, CONSIDERED LARGEST IN THE WORLD AT ONE TIME

This 2-10-10-2 was built in 1911, one of ten engines for the Atchison, Topeka & Santa Fe Railroad. They were cut into 2-10-2 simple engines about 1915.

Below is Engine 1398, 4-4-6-2 Mallet compound. Two locomotives of this design were received from the Baldwin Locomotive Works in 1909. They represent the first and, so far as is known, the only attempt to adapt the Mallet compound design to high-speed passenger service. Their driving wheels were 73″ in diameter. Both locomotives were rebuilt in 1915 into simple locomotives of the Pacific type and are still in service. Their present numbers are 1398 and 1399.

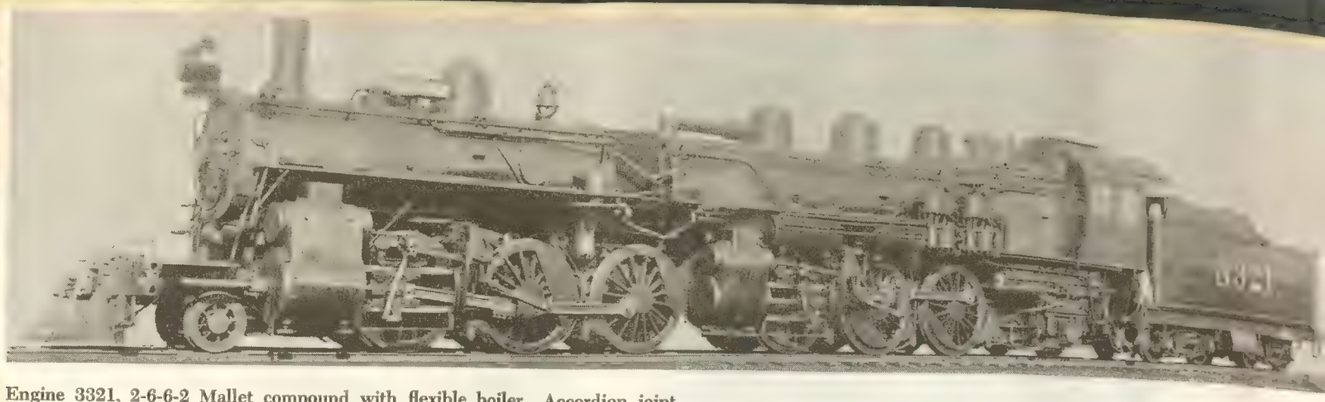


3300-3323



Atchison, Topeka & Santa Fe Railway Company

Four locomotives with articulated boilers, similar to that shown above, were built for the Atchison, Topeka and Santa Fe Railway, in 1911. These locomotives are generally similar to an experimental engine built for the same road in 1910, and the design follows that of the rigid boiler locomotives illustrated on page 28. In the engine now under notice, each boiler section is rigidly mounted on its respective frames, and the two sections are connected by a flexible joint as shown on page 10. The superheater is placed in the rear boiler section, and the reheater is in the front section. These heaters are of the Jacobs type, and are built into the boiler shell; while external steam pipes are used throughout. The only flexible steam pipe necessary is that which conveys the high-pressure exhaust to the reheater. All told, sixty-four Mallet locomotives of the 2-6-6-2 type have been built by The Baldwin Locomotive Works for this road. The leading dimensions of all these locomotives are alike, and the tractive force working compound is 61,500 pounds.

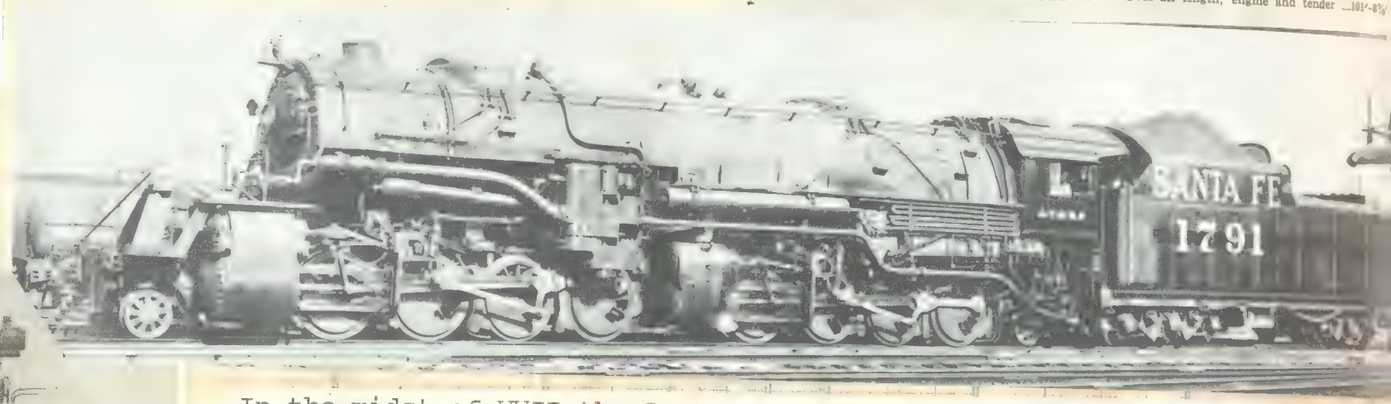


Engine 3321, 2-6-6-2 Mallet compound with flexible boiler. Accordion joint (later, ball joint). Received from Baldwin Locomotive Works in 1911.

Cylinders, diameter and stroke, in.	24&38x28	Driving wheels, diameter, in.	69
Boiler diameter, in.	70	Steam pressure, lbs.	220
Heating Surfaces, sq. ft.:		Weight on drivers, lbs.	315,300
Fire box	234	Total weight, lbs.	381,800
Flues	3330	Tractive force, lbs.	66,400
Feedwater heater	1550	Tender capacity: Gallons of water	9000
Superheater and reheater	901	Tons of coal	12
Grate area, sq. ft.	63.1	Over-all length, engine and tender	101′-8⅞″

Engine 3322, 2-6-6-2 Mallet compound with flexible boiler and ball joint. Received from Baldwin Locomotive Works in 1911.

Cylinders, diameter and stroke, in.	24&38x28	Driving wheels, diameter, in.	6
Boiler diameter, in.	70	Steam pressure, lbs.	
Heating surfaces: sq. ft.:		Tractive force, lbs.	32
Fire box	213	Weight on drivers, lbs.	62
Flues	3476	Total weight, lbs.	400
Feedwater heater	1446.3	Tender capacity: Gallons of water	
Superheater and reheater	974.8	Tons of coal	
Grate area, sq. ft.	63.4	Over-all length, engine and tender	101′-8⅞



In the midst of WWII the Santa Fe purchased eight 2-8-8-2's from the Norfolk & Western for use as helpers, mostly at Raton. The 1791, one of two, secured in Oct 1944. Former N&W #2022 was blt by Schenectady (c/n 61090) in 1919. Sold in Feb 1948 to the Virginian as their #739.

ese photos tell the story of Mallet articulated locomotives on the Santa Fe lway. The first Mallet compound locomotives to be acquired by the Santa were Nos. 1700 and 1701, received from Baldwin Locomotive Works in 9. Both locomotives were rebuilt into simple engines of the Mikado type 1924 and are now Nos. 1798 and 1799.

1170-1197 Baldwin 1910
c/n 35183

Engine 1157, 2-6-6-2 Mallet compound locomotive with flexible boiler. Ball joint, AT&SF design. Assembled at Topeka Shops in 1910.

Cylinders, diameter and stroke, in.	24&38x28	Driving wheels, diameter, in.	69
Boiler diameter, in.	74	Steam pressure, lbs.	220
Heating surfaces, sq. ft.:		Tractive force, lbs.	62,400
Fire box	195	Weight on drivers, lbs.	304,300
Flues	3543	Total weight, lbs.	370,200
Feedwater heater	2174	Tender capacity: Gallons of water	9000
Superheater and reheater	1063	Tons of coal	14
Grate area, sq. ft.	53.5	Over-all length, engine and tender	100′-11¹³⁄₁₆″

Engine 1158, 2-6-6-2 Mallet compound with flexible boiler and ball joint. Received from Baldwin Locomotive Works in 1910.

Cylinders, diameter and stroke, in.	24&38x28	Driving wheels, diameter, in.	69
Boiler diameter, in.	70	Steam pressure, lbs.	220
Heating surfaces, sq. ft.:		Tractive force, lbs.	62,400
Fire box	202	Weight on drivers, lbs.	295,500
Flues	3375	Total weight, lbs.	365,900
Feedwater heater	1516	Tender capacity: Gallons of water	9000
Superheater and reheater	1109	Tons of coal	12
Grate area, sq. ft.	52.5	Over-all length, engine and tender	101′-9⅜″

Cloc. No.

Sold

136

Nos 19 & 20, the westbound and eastbound CHIEFs, make their daily meet at Arriba, N.M. just east of Las Vegas.

Dearborn Station Chicago

THE CHIEF

The Chief . . . solid Pullman, is the *fastest* of all daily trains between Chicago and Los Angeles and *ONLY* daily lightweight streamlined train between these points. Leave Chicago 12:01 p. m. daily; leave Los Angeles 11:30 a. m. daily.

The "Blue Goose" escorts the CHIEF out of Los Angeles

Chief

(6 trains)

Atchison, Topeka & Santa Fe

Maximum weight of train: (Cars only)	1,320,000 lb.
Consist:	11 cars—1 mail; 1 baggage-mail; 1 club-baggage; 1 club-lounge; 1 diner; 5 sleeping cars; 1 sleeper-observation. (Additional lightweight sleeping cars are added as required)
Placed in service:	February 22, 1938 (Date lightweight equipment replaced former standard trains)
Operated between:	Chicago and Los Angeles (Each train in turnaround service)
Average daily mileage per train:	743
Overall scheduled speed:	47.6 m.p.h.
Total train miles:	2,067,584 (Made by present lightweight trains)

137

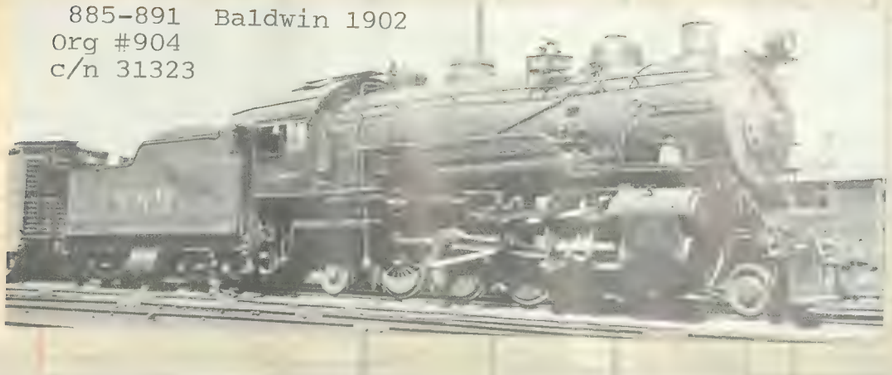
2-8-2

Amt. | Com.

Those of us who recall the glorious days of railroading can appreciate this panorama. The head shack is enjoying the scenery as the 3189 steps proudly along like a reigning monarch with her train near Cornith, Illinois. She was one of an order for 57 Mikes built [3171-3227] by Baldwin in 1918. c/n 48264.

SANTA FE ENGINE 4076 PULLING FREIGHT AT ARGENTINE, KANS.

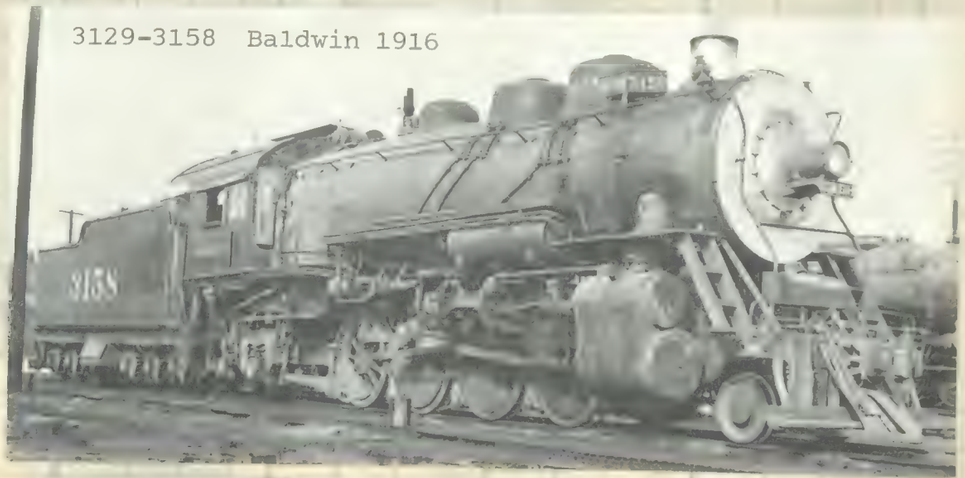
885-891 Baldwin 1902
Org #904
c/n 31323



3129-3158 c/n 43263 Baldwin 1916

Mikado Type Locomotive, Atchison, Topeka & Santa Fe Ry.

3129-3158 Baldwin 1916



Extra 3171 running along the Arkansas River near Kaw, Okla.

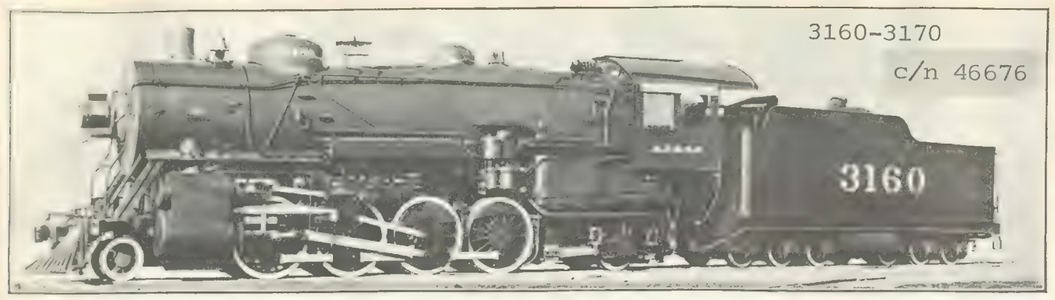


Fig. 86—Mikado (2-8-2) Locomotive for Freight Service. Built for Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. 1917

Gage	4 ft. 8½ in.	Heating Surface, Tubes	4,348 sq. ft.
Cylinders	27 in. x 32 in.	Heating Surface, Firebox	266 sq. ft.
Steam Pressure	190 lbs.	Heating Surface, Total	4,614 sq. ft.
Diam. of Drivers	63 in.	Heating Surface, Superheater	1,086 sq. ft.
Tractive Effort	59,800 lbs.	Grate Area	66.8 sq. ft.
Rigid Wheel Base	16 ft. 6 in.	Weight on Drivers	228,900 lbs.
Driving Wheel Base	16 ft. 6 in.	Weight, Total	314,900 lbs.
Total Wheel Base	35 ft. 1 in.	Fuel	Soft coal

Extra 3232 smokes up the atmosphere near San Pidel, New Mexico

Producing a beautiful pattern of wind blown exhaust, Mike 1023 moves the tonnage of 58 cars westbound near Syracuse, Okla in the fall o 1941

138

Fig. 57—Atchison, Topeka & Santa Fe 2-8-2 (Mikado) Type Locomotive for Freight Service. Built by The Baldwin Locomotive Works. Last order of 2-8-2's
4086-4100

Cylinders, diameter and stroke	27 in. x 32 in.	Driving wheel base	16 ft. 6 in.
Tractive force, engine	63,000 lb.	Total engine wheel base	35 ft. 0 in.
Cylinder horsepower	2,624 hp.	Fuel	Oil
Drivers, diameter	63 in.	Grate area	66.8 sq. ft.
Weight on drivers	249,460 lb.	Steam pressure	200 lb.
Weight on front truck	33,770 lb.	Evaporative heating surface	4,587 sq. ft.
Weight on trailing truck	54,650 lb.	Superheating surface	1,143 sq. ft.
Total weight of engine	337,880 lb.	Tender capacity	15,000 gal. water, 5,000 gal. oil

3273 at work in Kansas

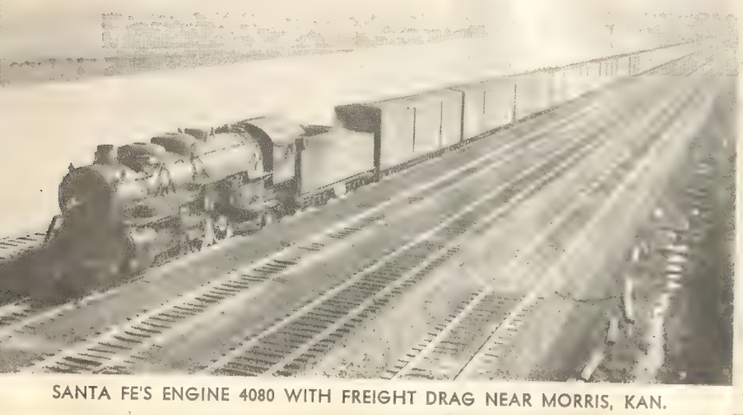
Extra 4051 with 72 cars west of Kaw, Okla.

The 3220 charges out of Bernalillo, N.M.

On the New Mexico "raceway"

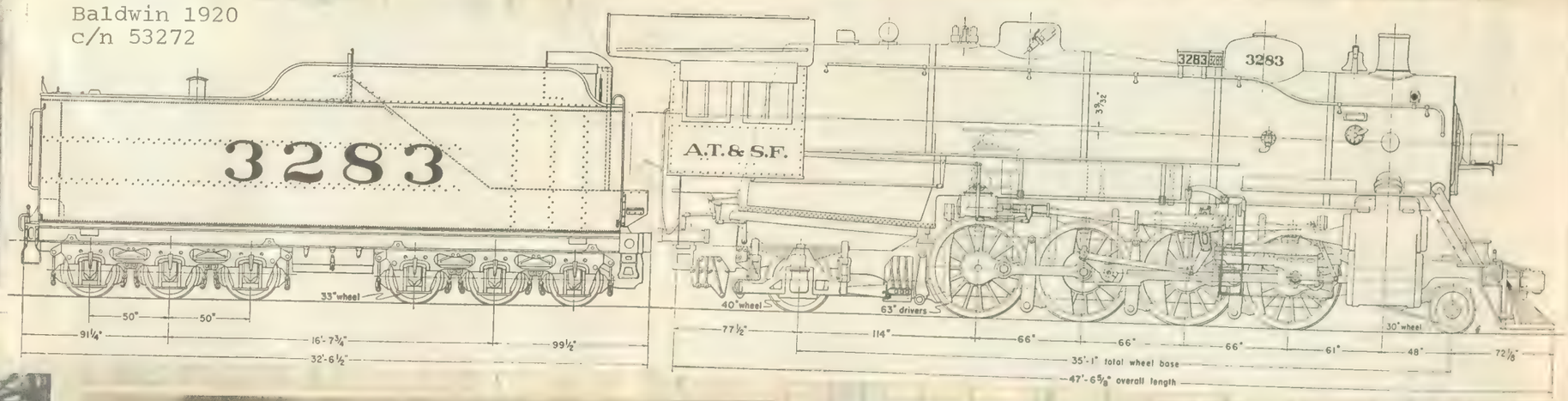
One of the New High-Speed Trains Finishing an Overnight Run of More than 400 Miles

The 3286 gets a wheel on an extra out of Cornith, Illinois



SANTA FE'S ENGINE 4080 WITH FREIGHT DRAG NEAR MORRIS, KAN.

3258-3287
Baldwin 1920
c/n 53272



Extra 4070 East crosses the Illinois River east of Chillicothe. This 2-8-2 was built in 1924.

Wallace W. Abbey

No. 3162, at the station platform at Ottawa Jct., Kans., is typical of Santa Fe's standard light weight freight engine. Tracks in the foreground are the Third District

A pair of Mikes wheeling an extra through Pinole, Calif.

Class. No.

mount Clos

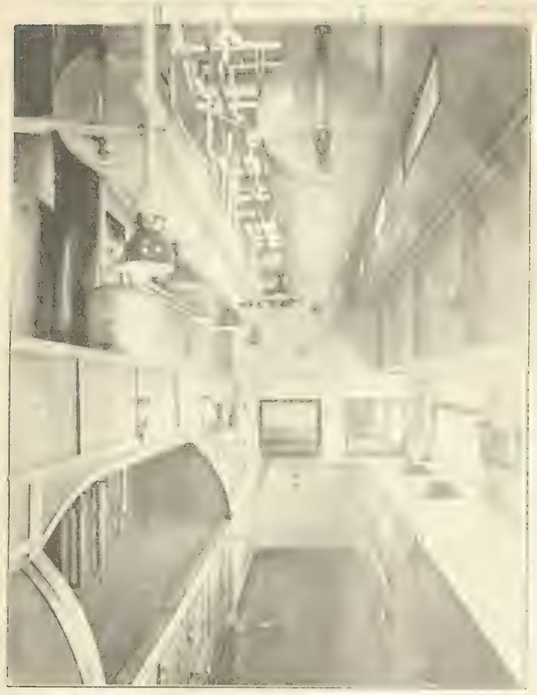
IERE ... ile heet

140

Edward N. Bewley, Rail Photo Service.

Along the Santa Fe Trail. An AT&SF Northern and a 2-10-2 helper throw an oil-smudge canopy over the heavy Grand Canyon Limited as they wheel the transcontinental express through Cajon Pass country.

Santa Fe Dining Car from the Kitchen Side 80'6" seats 36



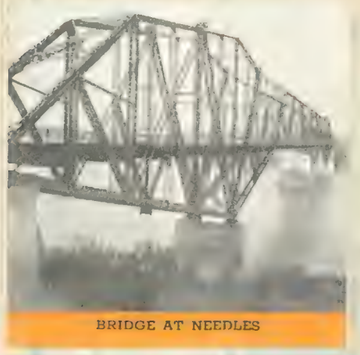
The Kitchen, Looking Toward the Pantry

Daylight View of the Dining Room

1951

Gagliardo-Clarkson Photos.

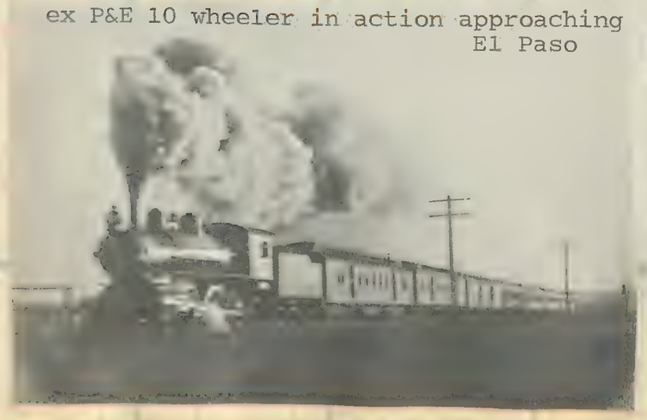
A cluster of locomotives (center) marks the hump of Santa Fe's Argentine (Kansas City) Yard at the height of the Kaw River's worst flood.



BRIDGE AT NEEDLES

SANTA FE'S OLD ENGINE 21 AT NEWTON, KANS., YARDS IN 1872

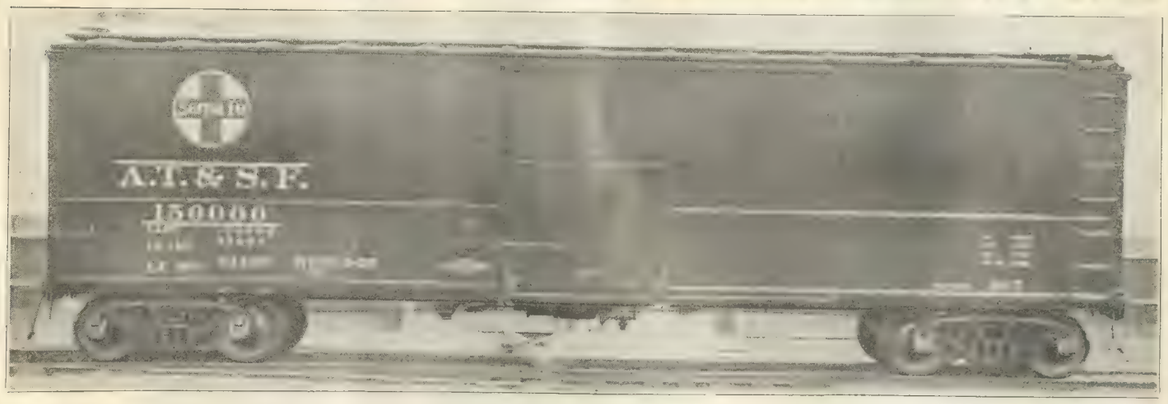
ex P&E 10 wheeler in action approaching El Paso



VIEW OF THE SANTA FE right of way near Pomona, Kansas, July 7, 1909. We are indebted to S. M. Hunt, jeweler of Burlingame, Kan., for the two photos reproduced on this page.

141

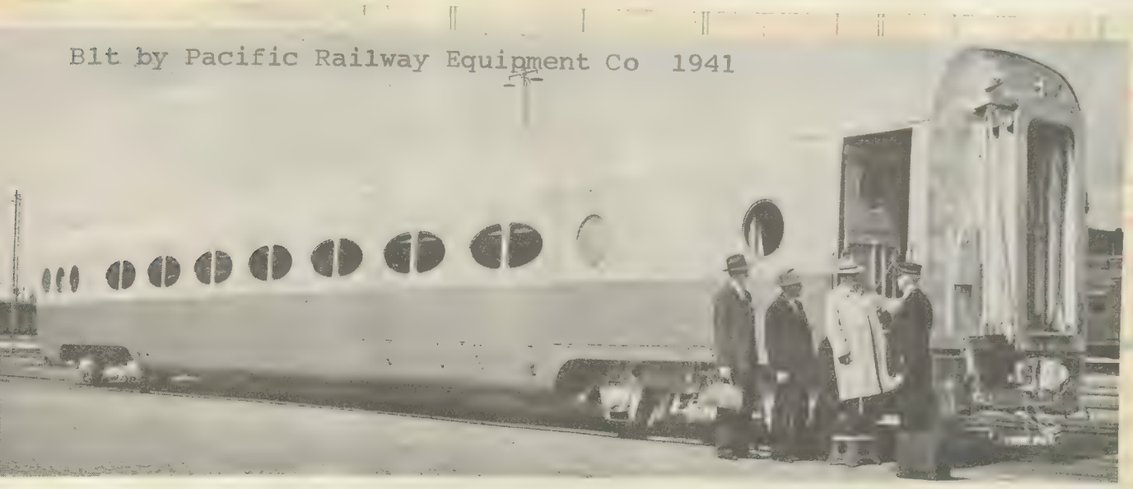
The terminal yards at Grand Canyon with the station at right and the Santa Fe's EL TOVAR hotel in center



Proposed Standard A. R. A. 40-Ton Capacity Double Sheathed Box Car With Wooden Outside Sheathing and Inside Wooden Lining Built for the Atchison Topeka & Santa Fe Ry. by the Pullman Car & Manufacturing Corp., Chicago.

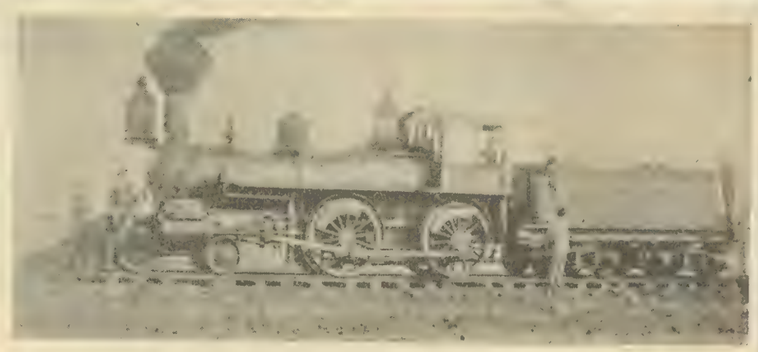
1925

Blt by Pacific Railway Equipment Co 1941



Santa Fe Pendulum-Type Passenger Coach Which Leans Inward Instead of Outward When Negotiating Curves at High Speeds

EARLY-DAY BRIDGE CONSTRUCTION is reflected in this photograph, taken in August, 1887, while the Santa Fe bridge located 1½ miles west of Smithshire, Ill., was under construction. Note the bents were raised by block and tackle. The picture is the property of A. L. Brown of Smithshire, and was sent to us by C. A. Berg, agent. Timbers were hauled overland by team from Kirkwood, Ill. The first train passed over the completed structure in November, 1887, when the bottoms around were crowded with sight-seers in buggies and on horseback. The bridge is 1,000 feet long and 72 feet high.



NO AIR PUMP, NO INJECTORS, NO LUBRICATOR

Old-time locomotive 47 of the G.C. & S.F. was photographed at Ballanger, Tex., in 1885. Valves were oiled from a cup on the steam chest; water was supplied to boiler by pumps connected to crossheads. Brother Joe Gerard, Div. 500, seated in the cab, was fireman, and his Brother, Ernest Gerard, deceased, seated on the front end, was engineer. Photograph submitted by Brother Joe Gerard.

H-4179 El Ortiz, The Fred Harvey Inn At Lamy, New Mexico.

Mikado #3185

THE ENTRAILS OF A SANTA FE LOCOMOTIVE lie bent and gnarled after a violent disembowelment near Standish, Mo. in the winter of 1921.

Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

CUT HERE To Make Short Sheet

c/n 59251

In 1926 Baldwin delivered 25 Santa Fe type numbered 3891-3915. Here is one of them at work with an extra near Castle Rock, Colorado. Note extra courses on stack.

c/n 51754

Initial engine of the "modern" 2-10-2's for the Santa Fe. 29 built by Baldwin 1919 (3800-3828) with cyls 30x32, dvs 63", BP 195# and T E 75,700.

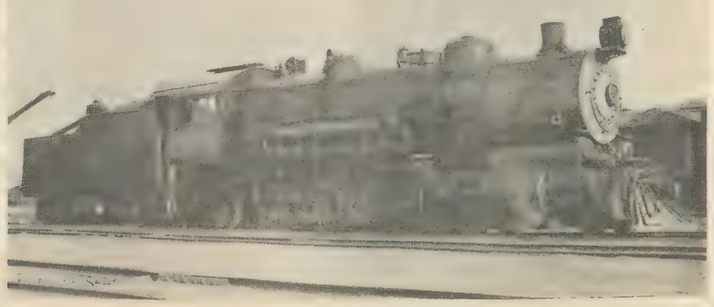
3830-3839 Baldwin 1920 c/n 53615

Photo by W. H. Thrall, Jr.

SANTA FE'S EXTRA 3831, 2-10-2 TYPE, hauling an eastbound green-fruit block on the second district of the Arizona Division west of Daggett, California.

Baldwin 1904
900-914

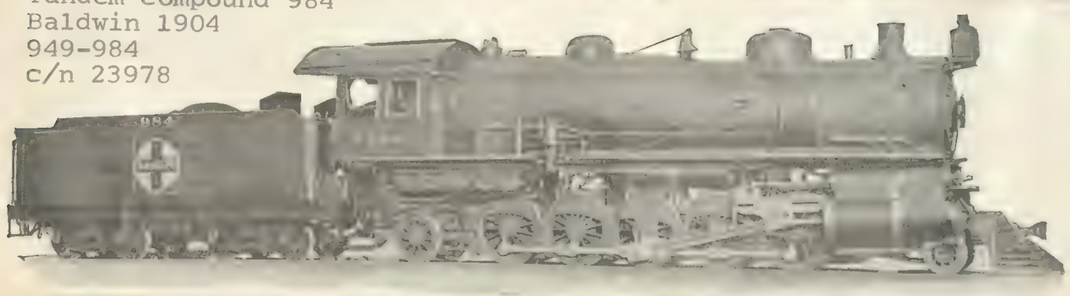
915-948 c/n 23234 Baldwin 1903



Santa Fe tandem compound 939, pictured some years ago, stands at Trinidad, Colo.

Two of the 140 engines of the 3800 class telling the world they are on the job.

Tandem compound 984
Baldwin 1904
949-984
c/n 23978



1674-1693 Baldwin 1912
c/n 38061

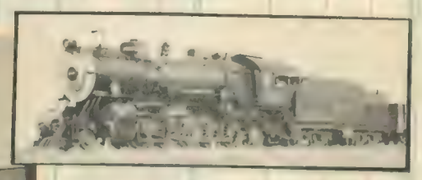
DLW 1921

3840-3849 c/n 55000

BALDWIN LOCOMOTIVE NO. 55,000, AN OIL-BURNER OF THE 3800 CLASS.

Cylinders, 30" x 32"
Drivers, diameter, 63"
Weight, total engine, 379,160 lbs.
Tractive force, 75,700 lbs.

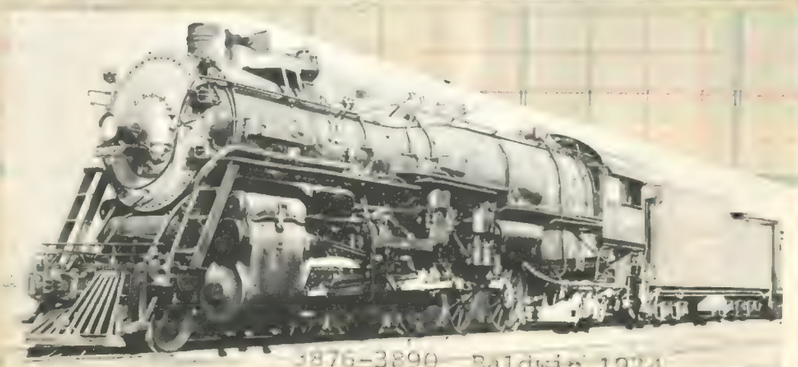
1694-1705 Baldwin 1913
c/n 39511



3850-3875
c/n 56844

2-10-2 TYPE LOCOMOTIVE, ATCHISON, TOPEKA & SANTA FE RAILWAY Baldwin 1923

Cylinders, 30" x 32"
Driving wheels, diameter, 63"
Steam pressure, 210 lb.
Grate area, 88.3 sq. ft.
Water heating surface, 5,311 sq. ft.
Superheating surface, 1,298 sq. ft.
Weight on drivers, 314,540 lb.
Weight, total engine, 405,090 lb.
Tractive force, 81,500 lb.



3876-3890 Baldwin 1924

Baldwin

144

3812 working between Belen & Madrone, N.M.

3891-3915 c/n 59252

One of the locomotives of the Santa Fe Type built for the Santa Fe System, 1926

Cylinders	30" x 32"	Water heating surface	5087 sq. ft.
Drivers, diam.	63"	Superheating surface	1405 sq. ft.
Steam pressure	220 lb.	Weight on drivers	316,660 lb.
Grate area	88.3 sq. ft.	Weight, total engine	402,470 lb.
	Tractive force	85,360 lb.	

Last order of 2-10-2's

1927

Fig. 126—Atchison, Topeka & Santa Fe 2-10-2 (Santa Fe) Type Locomotive, Equipped with Booster. Built by The Baldwin Locomotive Works. 1927

3916-3940 c/n 59781

Cylinders, diameter and stroke	30 in. x 32 in.	Driving wheel base	22 ft. 0 in.
Tractive force, engine	85,360 lb.	Total engine wheel base	41 ft. 1 in.
Traction force, booster	13,640 lb.	Fuel	Oil
Drivers, diameter	63 in.	Grate area	88.3 sq. ft.
Weight on drivers	320,000 lb.	Steam pressure	220 lb.
Weight on front truck	31,000 lb.	Evaporative heating surface	5,128 sq. ft.
Weight on trailing truck	62,500 lb	Superheating surface	1,504 sq. ft.
Total weight of engine	413,500 lb.	Tender capacity	15,000 gal. water; 5,000 gal. oil

1640-1658 Baldwin 1906
Reblt simple 1917
c/n 28433

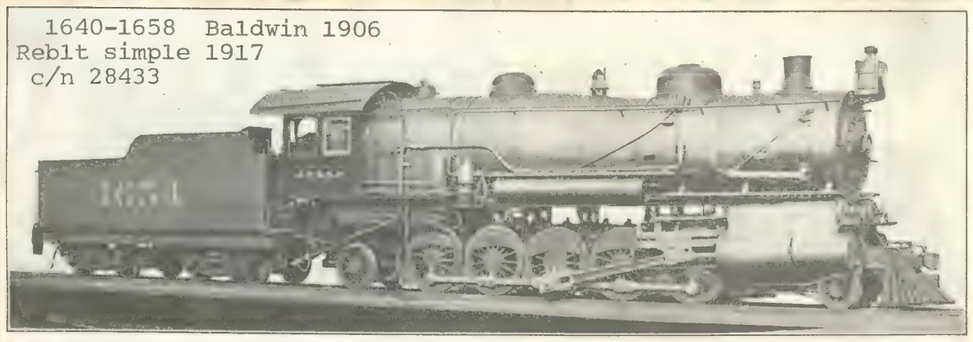


Fig. 64—Santa Fe Type (2-10-2) Tandem Compound Freight Locomotive. Built for Atchison, Topeka & Santa Fe by Baldwin Loco. Wks. Cyls., 19 in. and 32 in. x 32 in. Steam Pres., 225 lbs. Dia. Drivers, 57 in. Tractive Effort, 62,700 lbs. Heat. Sur.—Tubes, 4,586 sq. ft.; Firebox, 210 sq. ft.; Total, 4,796 sq. ft. Grate Area, 58.8 sq. ft. Rigid Wheel Base, 19 ft. 9 in. Total Eng. Wheel Base, 35 ft. 11 in. Wt. on Drivers, 234,580 lbs. Total Wt. of Eng., 287,240 lbs. Fuel, Soft Coal.

LOS ANGELES, CALIFORNIA: LA GRANDE (1893) Atchison, Topeka & Santa Fe

The Santa Fe originally reached Los Angeles in 1885 via Colton through a trackage arrangement with the Southern Pacific. A temporary station was built and used from 1887 until the La Grande station was opened in 1893. At the junction of Santa Fe Avenue and First Street, it was of Moorish design. *S. F.*

Southern California Ten wheeler #54 will handle train over Cajon Pass to Barstow where connection was made with the Atlantic & Pacific

#54 blt by Manchester in 1887 c/n 1314. To ATSF nos 770, 322

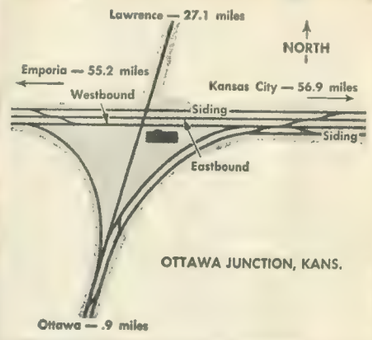
Here are the track and platform side of La Grande station with a train just leaving in 1899.

OKM

The New Santa Fe Station at San Diego, Cal., Said to be the most beautiful R. R. Station in California.

Depot and Harvey House in Sapulpa, Okla.

KINSLEY, KANS



H-1913 CASA DEL DESIERTO, SANTA FE HOTEL, BARSTOW, CALIFORNIA

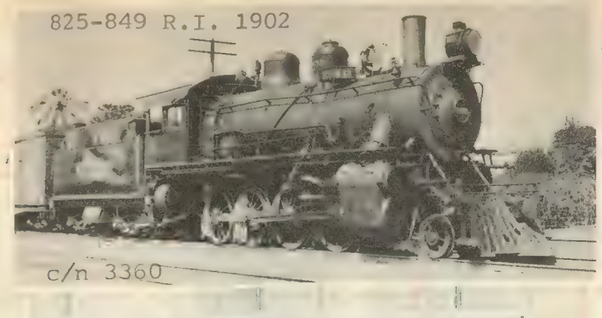
H-2895—THE FRED HARVEY-ALVARADO HOTEL, ALBUQUERQUE, NEW MEXICO

ARTESIA, N. M. c 1915

146

Clos. No. Sold Am

825-849 R.I. 1902



c/n 3360

Baldwin 1898
c/n 16328
Org #944

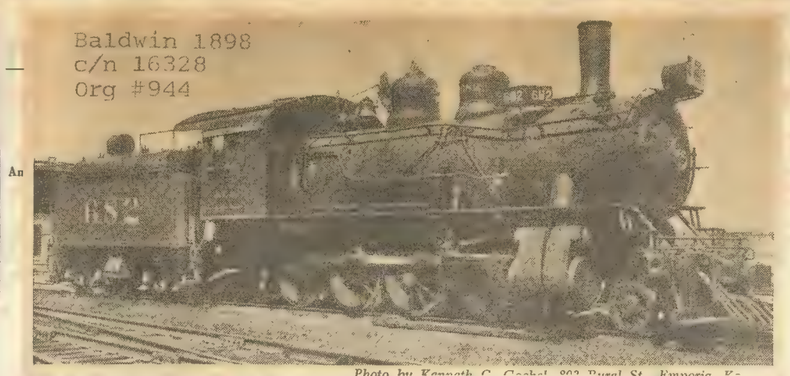


Photo by Kenneth C. Gerbel, 803 Rural St., Emporia, Ks.

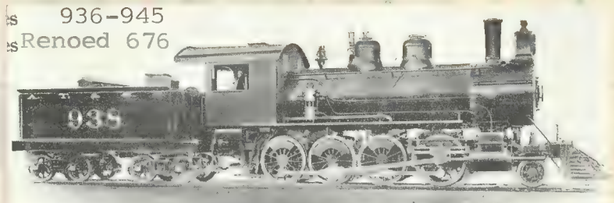
Am Sold Amount

ATSF 1900

789-803 Baldwin 1901

Tremendous Quantities of Oil Are Moving All-Rail From the Santa Fe Territory to the Eastern Seaboard

936-945
Renoed 676



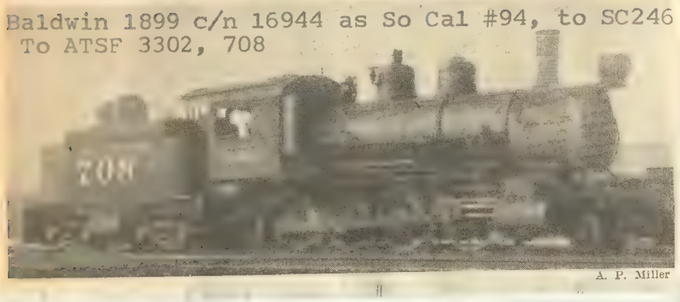
c/n 16322

CONSOLIDATION LOCOMOTIVE, 1898

Baldwin 1899

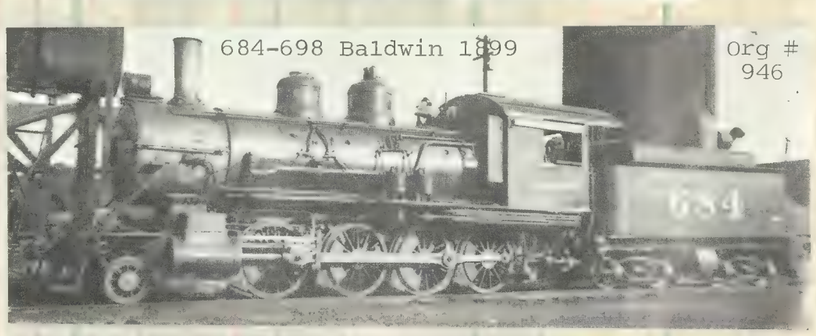
Blt as SFP #17
c/n 16400 to
SFP 264 to ATSF
3043 to 702

Baldwin 1899 c/n 16944 as So Cal #94, to SC246
To ATSF 3302, 708



A. P. Miller

684-698 Baldwin 1899 Org # 946

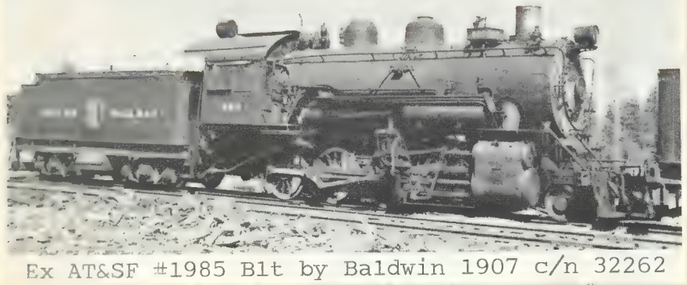


850-864 Pgh 1902

c/n 25354

A four cylinder balanced compound, one of four [256-259]
Built by Baldwin 1903

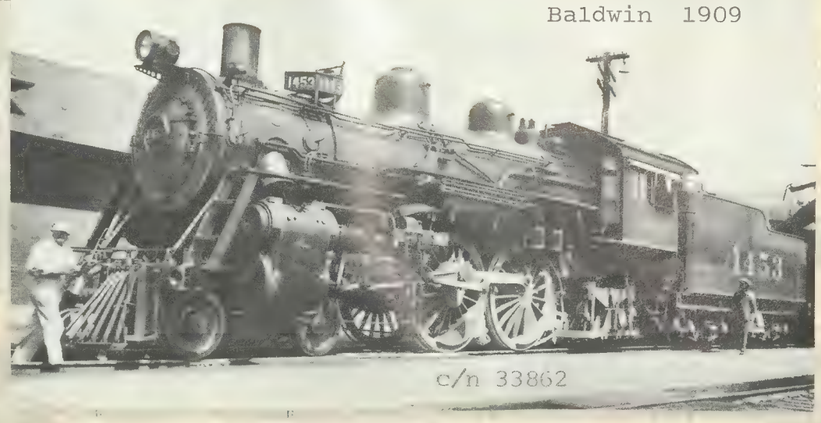
Ex AT&SF #1985 Blt by Baldwin 1907 c/n 32262



Baldwin 1904
507-541

c/n 24000

1452-1468
Baldwin 1909



c/n 33862

1910 1480-1502

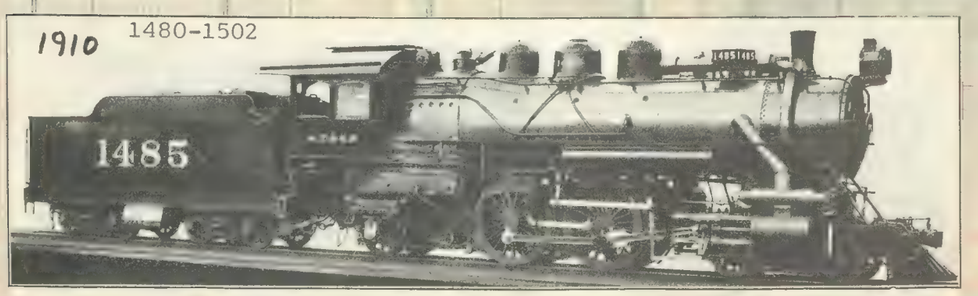
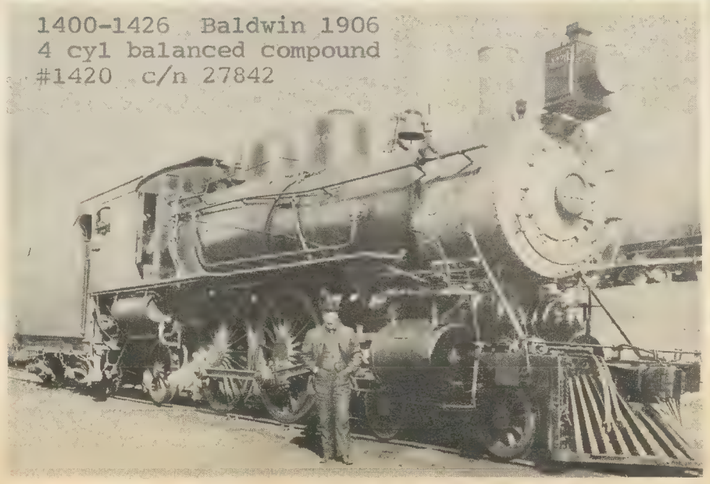
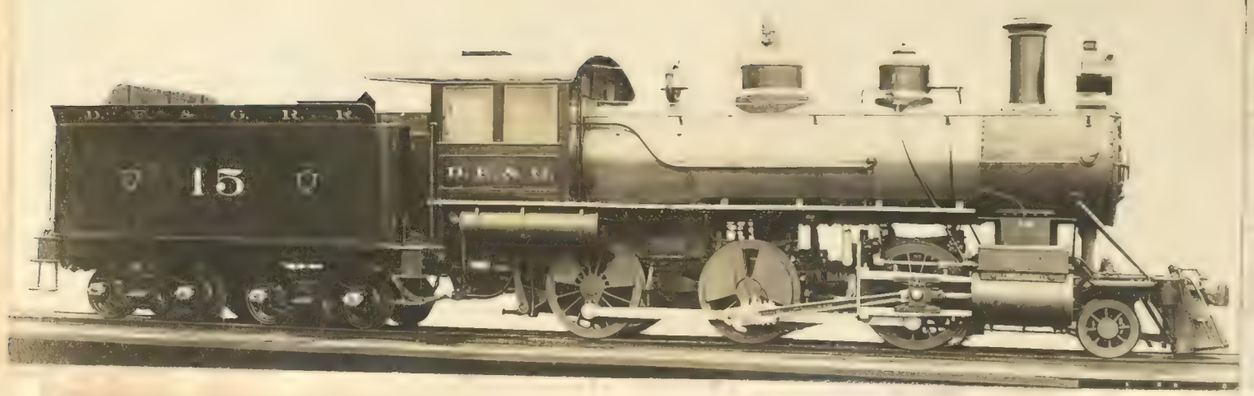


Fig. 54—Atlantic Type (4-4-2) Four Cylinder Balanced Compound Locomotive for Passenger Service. Built for the Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. Cylinders, 15 in. and 25 in. x 26 in. Steam Pres., 220 lbs. Diameter of Drivers, 73 in. Tractive Effort, 23,880 lbs. Heat. Sur.—Tubes, 2,318 sq. ft.; Firebox, 190 sq. ft.; Total, 2,508 sq. ft.; Reheating Surface, 1,147 sq. ft. Grate Area, 48 sq. ft. Rigid Wheel Base, 6 ft. 10 in. Total Engine Wheel Base, 32 ft. 8 in. Wt. on Drivers, 112,125 lbs. Total Wt. of Eng., 231,675 lbs. Fuel, Oil.

1400-1426 Baldwin 1906
4 cyl balanced compound
#1420 c/n 27842



147



BREAKING IN LOCOMOTIVE 15 OF THE DENVER, ENID & GULF R.R. AT CRESCENT, OKLA.

S. R. Wood

In 1907 this Baldwin locomotive was renumbered 147 for the Atchison, Topeka & Santa Fe. She was fitted with piston valves about 1915 and scrapped about 1927. Brother Roy Worthington, engineer, is in the center, on the left is Brother Harry Pickett, fireman, both members of Div. 462, and on the right, a representative of the Baldwin Locomotive Works.

PASADENA, CALIFORNIA (1886) Atchison, Topeka & Santa Fe

The Raymond Station was built by the Los Angeles & San Gabriel Valley Railroad in 1886, when they constructed the railroad from Los Angeles to the San Gabriel River, and this was the first station in Pasadena. It was located one mile west of the present building which dates from 1895. The Santa Fe System acquired the L. A. & S. G. V. in 1887.

A. T. S. F.

Seven Sections of California Limited Ready to Pull Out of Los Angeles Station

Tall-stacked No. 2 of the Outer Harbor Terminal Railway.

The Saint and the Angel

SANTA FE parlor car No. 1204 was built by Pullman in December 1910 for the San Diego-Los Angeles section of trains 15 and 16 (the *Saint* and the *Angel*) which operated overnight on the Los Angeles-San Francisco line via Barstow, Bakersfield, and Fresno, a total of 719 miles in 21 hours. The exterior was painted white, and inside furnishings included wicker chairs. Among the refinements were the SANTA FE insigne stenciled near the car numbers, leaded glass bells set into each window Gothic, and the brass railing on the observation platform.

A Section of Well-Tied, Well-Maintained Track on the Santa Fe Between Herman, Okla., and Mooreland

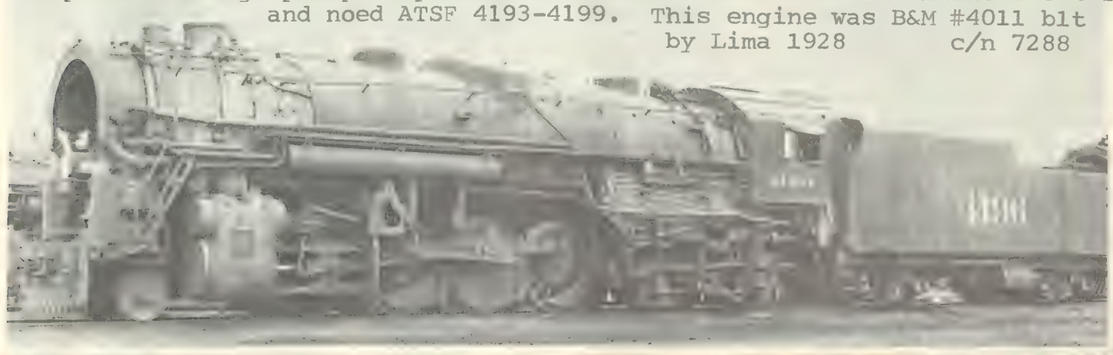
The Santa Fe's venture with the Berkshire type was fifteen engines (4101-4115) built by Baldwin in 1927 c/n 59954

Fig. 101—Atchison, Topeka & Santa Fe 2-8-4 Type Locomotive, Equipped with Booster. Built by The Baldwin Locomotive Works.

Cylinders, diameter and stroke	27 in x 32 in.	Weight on trailing truck	98,200 lb.	Firebox, length and width	132 in. x 108 in.
Tractive force, engine	69,200 lb.	Total weight of engine	396,500 lb.	Grate area	99 sq. ft.
Tractive force, booster	13,600 lb.	Weight of tender	285,100 lb.	Steam pressure	220 lb.
Drivers, diameter	63 in.	Driving wheel base	16 ft. 6 in.	Evaporative heating surface	4,577 sq. ft.
Weight on drivers	268,200 lb.	Total engine wheel base	37 ft. 2 in.	Superheating surface	1,246 sq. ft.
Weight on front truck	30,100 lb.	Fuel	Coal	Tender capacity	15,000 gal., 20 tons

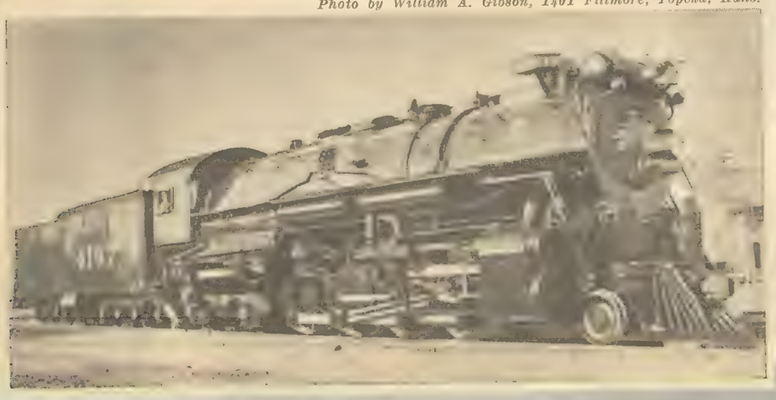
The Centennial State

A power shortage prompted purchase of seven former Boston & Maine 2-8-4's and noed ATSF 4193-4199. This engine was B&M #4011 blt by Lima 1928 c/n 7288



BELOW: The same class of engine today, following extensive alterations. The 4197 was formerly B&M's Number 4003

Photo by William A. Gibson, 1401 Fillmore, Topeka, Kans.



13 At 7:30 a.m. in the Argentine yards at Kansas City, *No. 39* rolls cautiously across the switches to the freight house where its cars will be unsealed, its freight unloaded and goods delivered to customers first thing in the morning.

Pacific 3523 gets their attention as she charges out of the starting gate, Oakland, with the California Limited

BUSY SANTA FE TERMINAL was located at Nickerson, Kansas, in the northern portion of Reno County. This historic photograph, taken in 1886, shows the 28-stall enginehouse and shops in the hey-day of their operation; note the locomotive standing near the cinder pits in the foreground, and the large supply of coal stacked in the open at the right of the cinder cars. Trees have been planted in the plot at the right of the office building to provide shade and a touch of color, while the level Kansas plain stretches away to the horizon in monotonous infinity. The Nickerson shops were removed to the old trail town of Newton, Kansas, around 1898. Nickerson was named in honor of Thomas Nickerson, the Bostonian who was president of the Santa Fe from 1874 until 1880. (Courtesy of Santa Fe Railway)

Santa Fe 3459 (4-6-4) and 2901 (4-8-4) with a 16-car special west of Victorville, Calif. June 1950

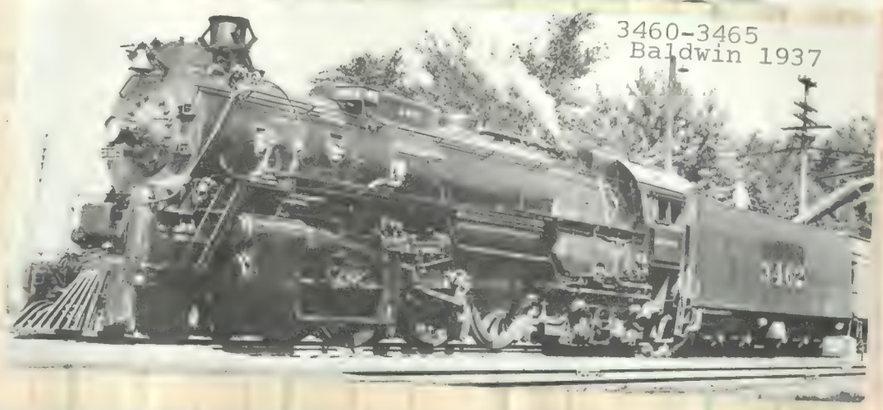
3450-3459 c/n 59994 Baldwin 1927

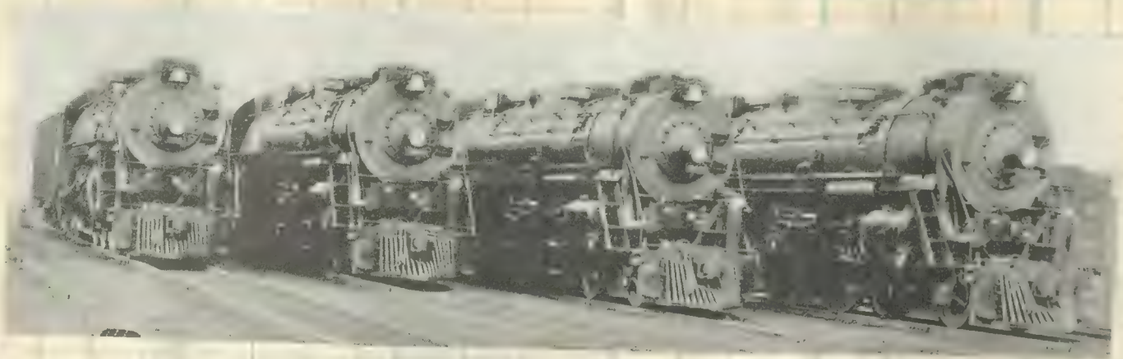
On static display-Los Angeles city Fairgrounds

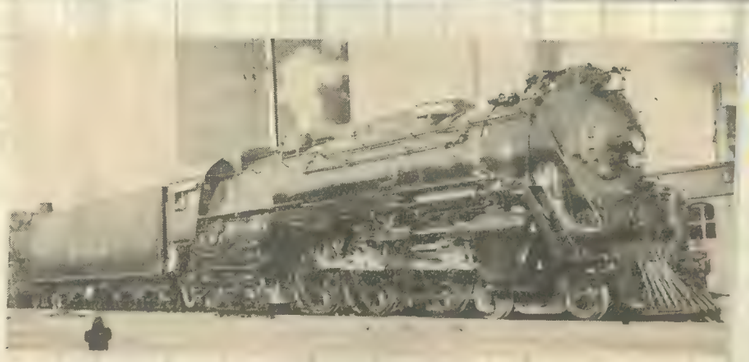
The 3450 struggles with a heavy extra consist.

In 1937 Baldwin delivered six (3460-3465) of these prairie racers for service between Chicago and LaJunta. With 84" drivers they were inclined to be a bit slippery but once moving they could wheel you along as fast as you cared to ride! The box tank held 7,000 gal oil and 20,000 gal water c/n 62085

3460-3465
Baldwin 1937







On static display
Topeka, Kans

The "BLUE GOOSE"-only streamlined engine on the S.F.

150

Clos. No. Sold Amount Cl

The CHIEF, running on the left hand track, storms by Extra 3259 on Edelstein Hill near Chillicothe, Ill.

Clos

old Amount Clos. No. Sold Amount

THE CHAIR CARS . . . ALL NEW, OF LIGHT WEIGHT AND STREAMLINED IN GLEAMING STAINLESS STEEL

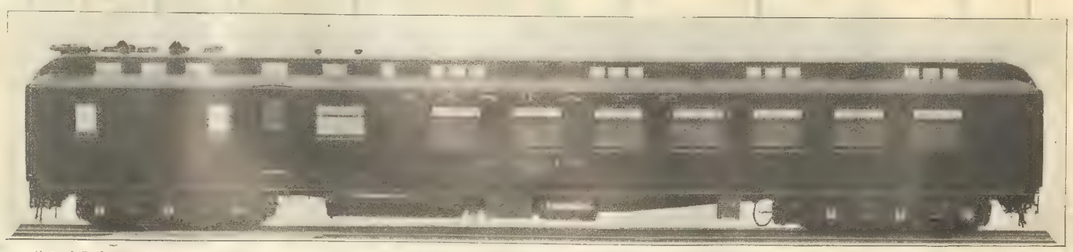
Scout

One of an Order of 50-Foot Steel Refrigerator Cars Built for the Santa Fe Refrigerator Despatch by the General American Transportation

CAPISTRANO, CALIFORNIA Atchison, Topeka & Santa Fe

This is the old Moorish-style Capistrano station of the Santa Fe in the 1900s.

One of the Many Relocations—New Line on the Right, Old Roadbed on the Left and Temporary Connection in the Left Fore-Ground



#1464-1473 Santa Fe New Steel Dining Car Built for Long Distance Travel. 1925

116000-118999
Pullman 1923

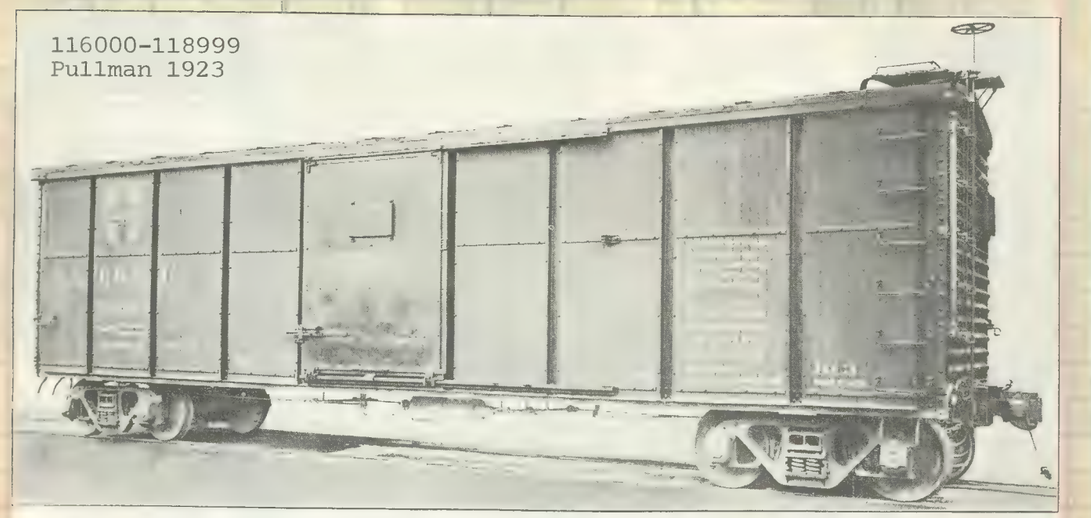
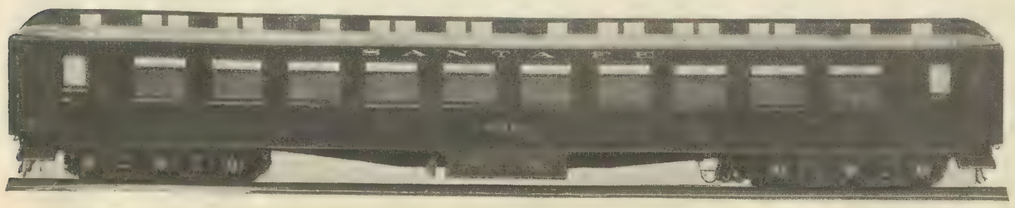


Fig. 19—Steel Frame, Double Sheathed Box Car, Having Sectional Arrangement of Sheathing Between Side Posts.

THE BEAUTIFUL MODERN LOUNGE CAR FOR SLEEPING CAR PASSENGERS

Scout



2962 PULLMAN 1925

151

SELLER
DATE
FORM

Sold | Amount | Clos. No. | Sold | Amount

SANTA FE RAILFAN SPECIAL

In March 1948 the Railway Club of Southern California sponsored a "Mainline Holiday" on the Santa Fe from Los Angeles through Cajon Pass to Barstow. Pulled by 4-8-4 No. 3780, the special train is pictured taking water at San Bernardino. The special stopped at Alray and Summit in the Pass, and railfans visited the backshop and roundhouse at "San Berdoo" and the road's main diesel shop at Barstow. Santa Fe has 65 4-8-4's.

Baldwin 1941
c/n 62469
3776-3785

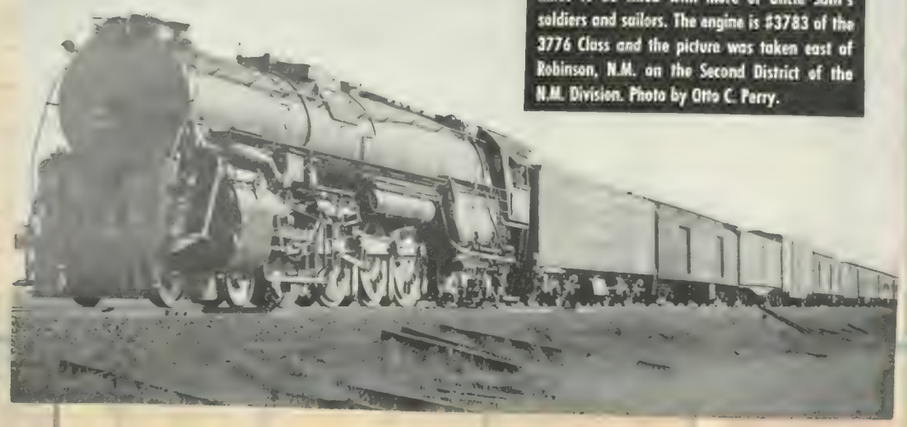
. . . from Kansa

On August 27, 1957 the 3780 backed down to lock knuckles with an eastbound tonnage train at Belen, N. M. In the cab G. I. Riley held down the right hand seat box and M. E. Key was the fireman. Their assignment was to work as a helper up the hill thru Abo Canyon to Mountainaire. When she had returned to Belen it proved to be the last run of steam on the Santa Fe. After eighty eight years of faithful service steam was retired and the Santa Fe became just another over sized interurban trolley pike.

Melrose, New Mexico

Santa Fe #8 Fast Mail and Express east of Grants, N. M. on the First District of the Albuquerque Division. The engine is 4-8-4 Type 3776 Class and is running through from Los Angeles to La Junta. Photo by Otto C. Perry.

Santa Fe second #8 with 19 cars, 14 of which are D.H.Q. (dead head equipment) returning east after a westbound military move. On many occasions empty cars have to be hauled many miles to be filled with more of Uncle Sam's soldiers and sailors. The engine is #3783 of the 3776 Class and the picture was taken east of Robinson, N.M. on the Second District of the N.M. Division. Photo by Otto C. Perry.



Clos. No. | So | Clos. No. | Sold | Amount | Clos. No. | Sold

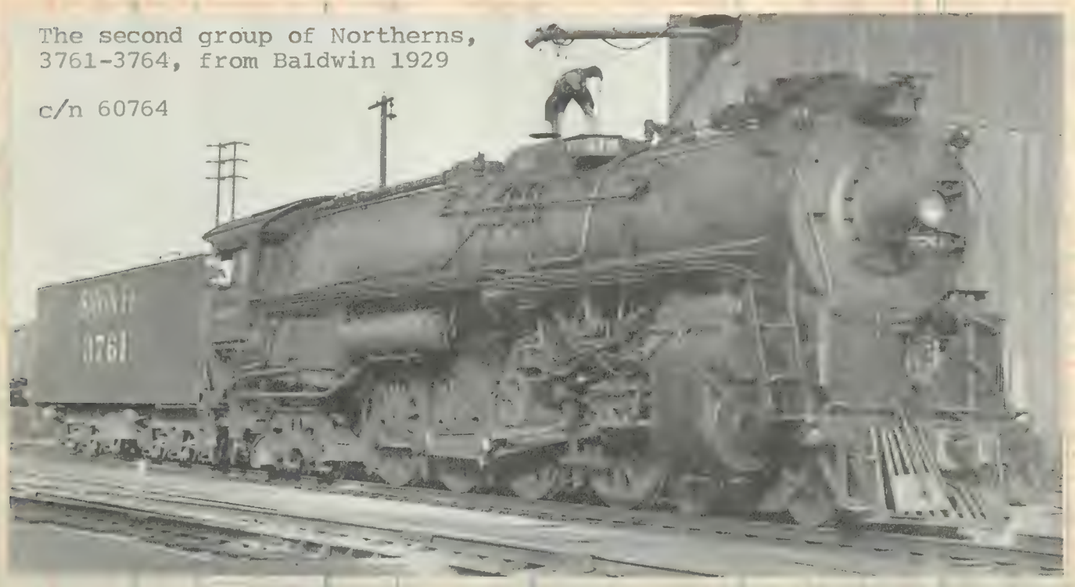
The initial order of 4-8-4 type for the Santa Fe covered nine engines (3752-3760) delivered by Baldwin in 1928. c/n 60329

Alston Railroad Photographs
SANTA FE'S ENGINE 3755 HAULING "GRAND CANYON LIMITED" THROUGH RIVERSIDE, CAL.

3752-3760 Baldwin 1928
Franklin poppet valves

The second group of Northerns, 3761-3764, from Baldwin 1929

c/n 60764



3761-3764
Baldwin 1929

3762 with the "Centennial State" near Palmer Lake, Colo

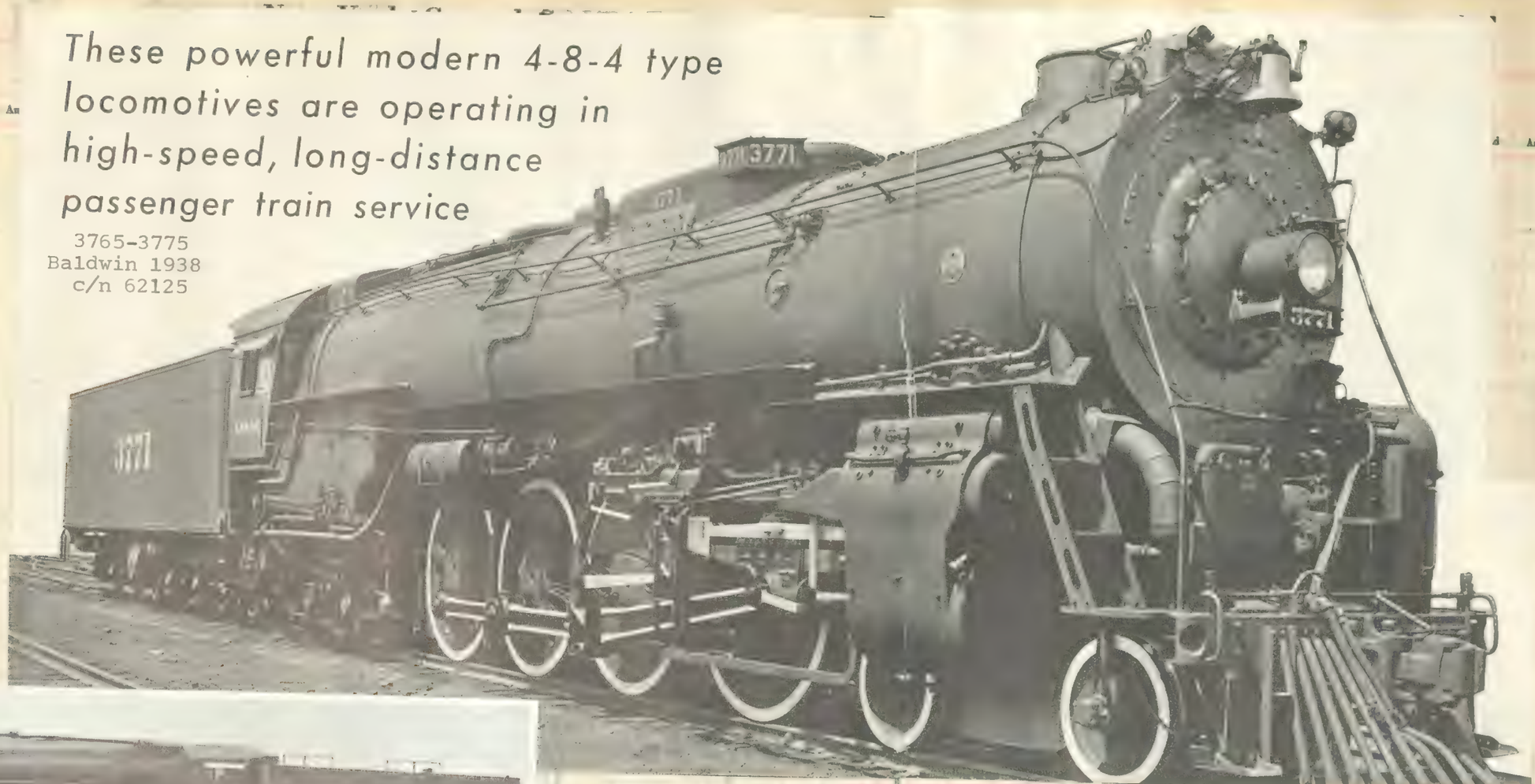
153

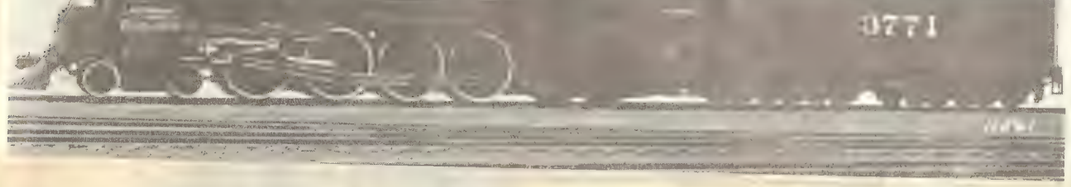
SELLER
DATE
FORM | DESTINATION | An

d	Amount	Clos. No.	Sold	A

These powerful modern 4-8-4 type locomotives are operating in high-speed, long-distance passenger train service

3765-3775
Baldwin 1938
c/n 62125





Allston Railroad Photographs

Allston Railroad Photographs

SANTA FE'S ENGINE 3773 HAULING FREIGHT AT RIVERSIDE, CAL.

The 3768 drifts down off Cajon with the CHIEF

Total

Add—Error _____ DATE

Deduct " _____ DATE

Total

Add Working Fund

Total to be Accounted for

Cash to Agent

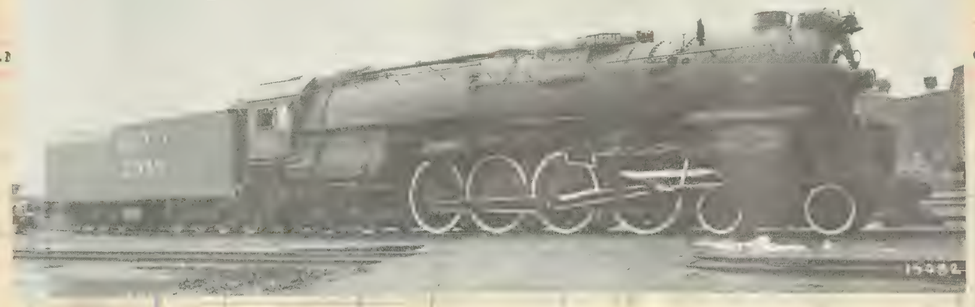
Agent's Signature

Cash to next Seller

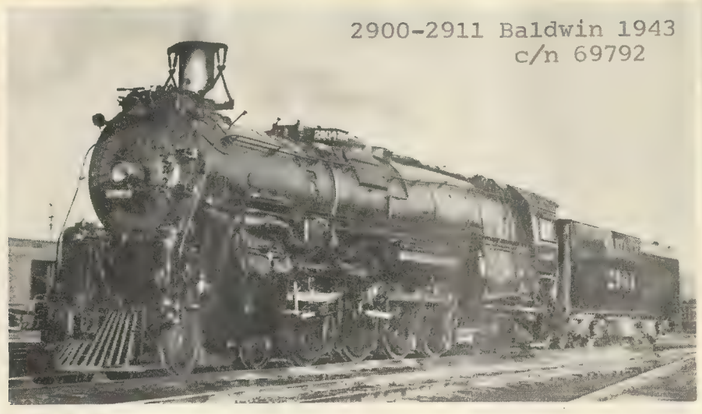
Next Seller's Signature

Total Accounted for

The heaviest 4-8-4 type ever built, eighteen (2912-2929) delivered by Baldwin 1944 c/n 69807

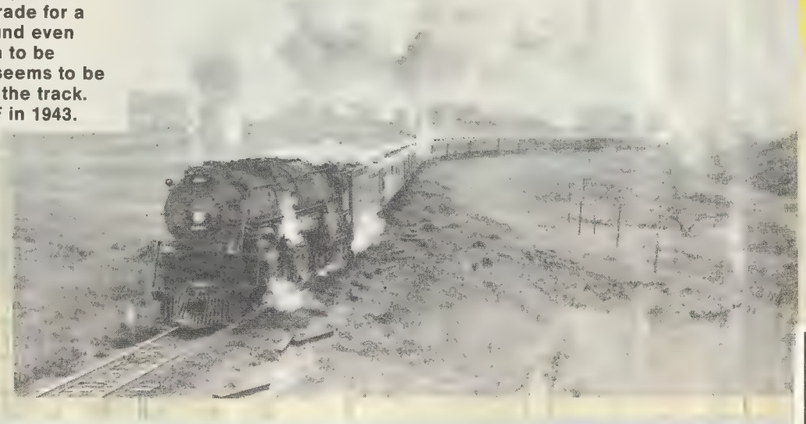


2900-2911 Baldwin 1943
c/n 69792



VERY free-running Santa Fe 4-8-4 2904 produced nearly 6000 indicated horsepower and could — and did — furnish competition for 5400 h.p. diesels out of Argentine, Kans.

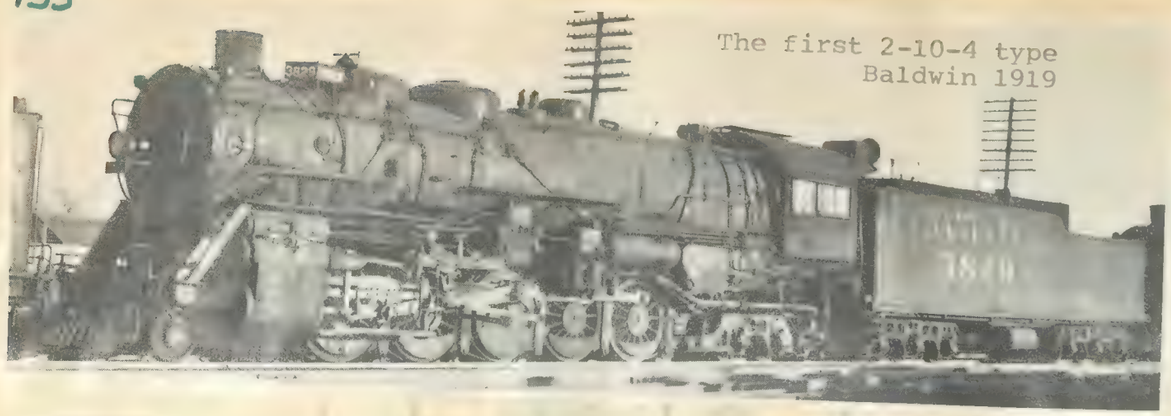
BELOW: Santa Fe 2901, a 4-8-4, climbs Curtis Hill above Quinlan, Okla. (between Waynoka and Woodward), with the 15 cars of Second 23, the *Grand Canyon Limited*, on November 3, 1945. Grade for a line change can be seen in the background even with the top of the engine, yet they seem to be replacing ties on the old line here. This seems to be an awful lot of locomotive for the size of the track. Baldwin delivered the Northern to AT&SF in 1943.



Kansas City

#79 at San Diego

155



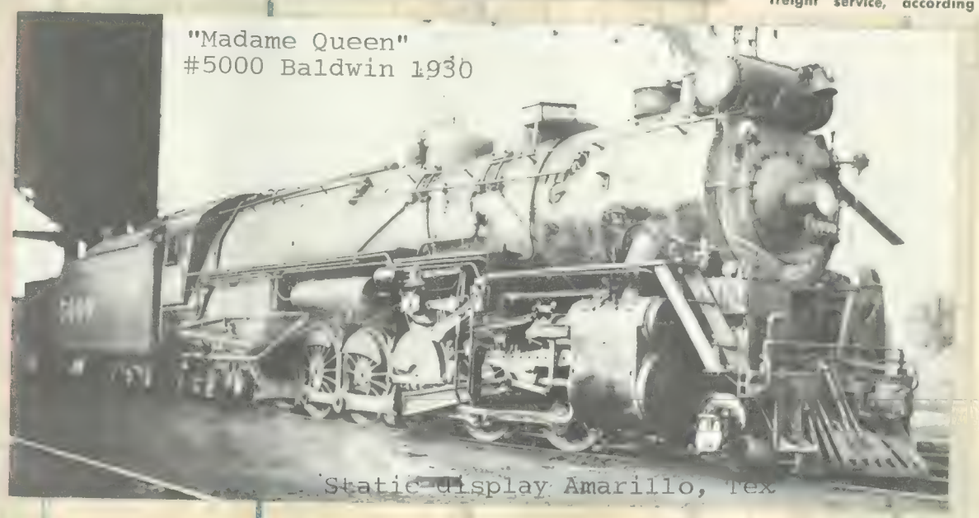
The first 2-10-4 type
Baldwin 1919

Technically speaking, No. 3829← was the first 2-10-4 ever built. Actually, this Baldwin engine was a conventional 3800 class Santa Fe type fitted with an experimental four-wheel trailing truck. The engine was delivered to the carrier in 1919 and is still performing mainline freight service, according to latest reports.

Loc. No. | Sold

"Madame Queen" #5000 Baldwin 1930 c/n 61524

On static display-Santa Fe Park-Amarillo, Tex.



"Madame Queen"
#5000 Baldwin 1930

Static display Amarillo, Tex

5001-5010
Baldwin 1938

Cyls 30x34 dvs 74" BP 310# TE 93,000

Santa Fe Extra 5004 West with 4200 tons and 81 cars of wheat and stock for the Pacific coast running over the Pecos Division near Vaughn, N. M. The engine is a 2-10-4 Type 5001 Class.

Same train, same location but by two different photographers. Upper by Dick Kindig, lower Preston George

Santa Fe #5015, 5025 coupled, 2–10–4, the famous 5011 class with an eastward green fruit block climbing the 1.14% grade in Abo Canyon, N.M., with eighty-seven cars on the Second District of the Pecos Division CTC territory. Photo by Preston George.

The last engines for the Santa Fe were twenty five magnificent Texas type (5011-5035) delivered by Baldwin in 1944.

2-8-0 Baldwin 1907 c/n 32045
Used as the high-pressure unit in construction of 2-8-8-0 #3297 in 1911.
Restored to 2-8-0 in 1923

NEARLY 30 YEARS AGO

his picture of Santa Fe engine 1976 was taken back in 1908. Its engineer at that time was Brother J. C. Stewart, Div. 148, who sent us the picture. The fireman was John F. Drevler.

Most of these veterans were recalled to active duty

Santa Fe veterans before scrapping: San Bernardino Yards, 1938. Howard Eichstaedt, 2763 Eastwood Ave., Evanston, Ill.

1689,1628 (2-10-2) retired 1953. 1257 (4-6-2) retired 1949
3020 (2-10-2) retired 1940

Atchison, Topeka & Santa Fe 50-ton, 48 ft. 6 in., all-steel gondola car with drop-ends, wooden floor and small side doors for manual shovel unloading of bulk coal at wayside stations. Road Class GA-49. Builder, American Car and Foundry Company.
Inside, length 48 ft. 6 in.; width 9 ft. 0 in.; height of sides 3 ft. 10 in.; capacity 1,673 cu. ft.; light weight 47,000 lb.; load limit 122,000 lb.

StLouis, Rocky Mtn & Pacific
2-8-0 blt by Baldwin 1906
To Rocky Mtn & Santa Fe #103
In 1924 to ATSF#872

Photo from C. E. McCall

Constructed 1935

Typical Tangent Track on the Boise City-Las Animas Line. Note Character of Country.

157

Santa Fe

No.

T

Clos. No.	Sold	Amount	Clos. No.	Sold	Amount

THE RANGER

Santa Fe's fine, fast flyer for Kansas City and Kansas, Oklahoma and Texas, now carries a through observation Pullman between Chicago and San Antonio. Air-conditioned, of course.

Pacific 3432, one of ten-3430-3439-delivered by Baldwin in 1923, chuckles along near Kildare, Okla with eleven cars of #5, the southbound RANGER.

3400-3419
Baldwin 1919

c/n 51594 Reblt Topeka Feb 1940

Fig. 148—Pacific (4-6-2) Locomotive for Passenger Service. Built for Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. ~~1931~~

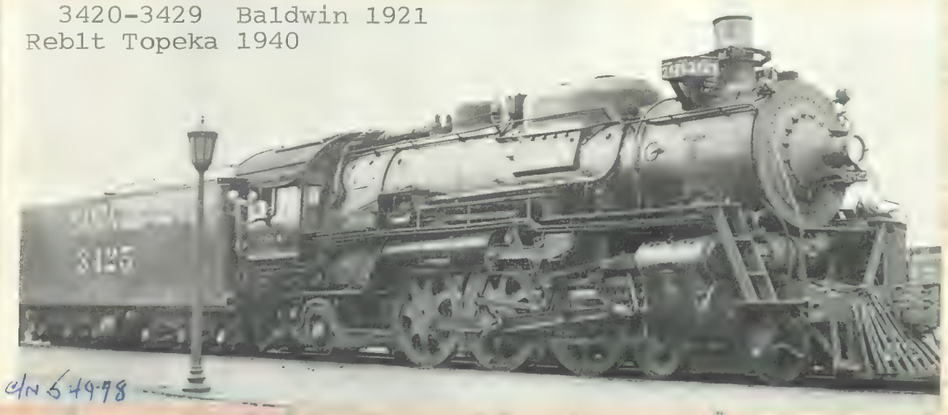
Gage	4 ft. 8½ in.	Heating Surface, Firebox	235 sq. ft.
Cylinders	25 in. x 28 in.	Heating Surface, Superheater	942 sq. ft.
Steam Pressure	200 lbs.	Grate Area	66.5 sq. ft.
Diameter of Drivers	73 in.	Weight on Drivers	179,550 lbs.
Rigid Wheel Base	13 ft. 8 in.	Weight on Front Trucks	60,600 lbs.
Driving Wheel Base	13 ft. 8 in.	Weight on Back Trucks	60,800 lbs.
Total Engine Wheel Base	35 ft. 3 in.	Weight, Engine	300,950 lbs
Tubes, Length	21 ft. 0 in.	Total Weight Engine and Tender	534,670 lbs.
Heating Surface, Tubes	3,842 sq. ft.	Fuel	Soft coal

Allston Railroad Photos

SANTA FE PASSENGER ENGINE 3414 WITH EXTENSION STACK
Photo snapped as engine took on water at Chillicothe, Ill.

3408 departs
Perry, Okla
with Trn #16

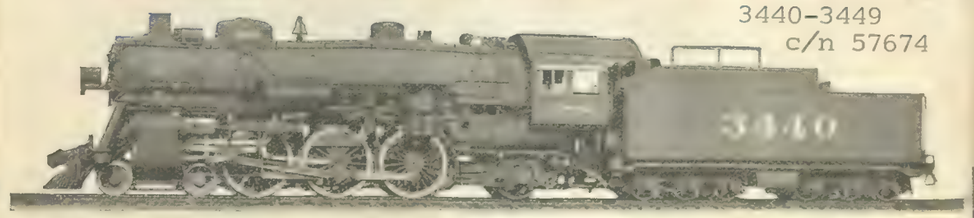
3420-3429 Baldwin 1921
Reblt Topeka 1940



c/n 54998

Allston Railroad Photograph

GRAND CANYON LIMITED TAKES WATER
Locomotive 3429 of the Atchison, Topeka & Santa Fe was photographed at Chillicothe, Ill
Note new large tender and stack extension.



3440-3449
c/n 57674

THE LATEST BALDWIN PACIFIC TYPE BUILT FOR THE SANTA FE SYSTEM
Cylinders, 25"x28" 1924 Weight, total engine, 312,040 lb.
Driving wheels, diameter, 73" Tractive force, 40,900 lb.

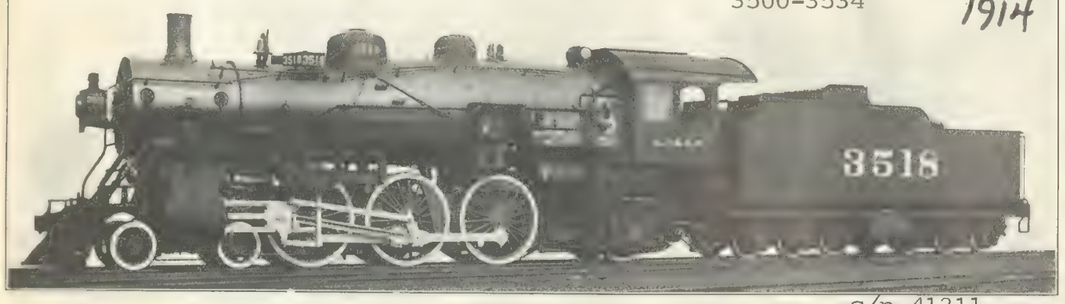
D. W. Eddridge

SANTA FE'S ENGINE 3441 WAITING TO TAKE THE "OIL FLYER" TO KANSAS CITY

Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount

Looking like a dowager displaying her jewelry, rebuilt 3437 seems content as she enjoys the sun at Argentine engine terminal. Apparently the boys at Topeka shops took delight in hanging all the latest gagets they could find on the old girl. Even so, no doubt, she is a far better machine than when turned out by Baldwin in 1923.

3500-3534 1914



c/n 41211

Fig. 67—Pacific Type (4-6-2) Four Cylinder Balanced Compound for Passenger Service. Built by the Baldwin Locomotive Works for the Atchison, Topeka & Santa Fe. Cylinders, 17½ in. and 29 in. x 28 in. Steam Pressure, 210 lbs. Diameter of Drivers, 73 in. Tractive Effort, 34,000 lbs. Heating Surface—Tubes, 3,235 sq. ft.; Firebox, 240 sq. ft.; Total, 3,475 sq. ft.; Superheater Surface, 619 sq. ft. Grate Area, 58 sq. ft. Wheel Base—Driving, 13 ft. 8 in.; Total, 35 ft. 1 in. Weight on Drivers, 165,100 lbs. Total Weight of Engine, 277,700 lbs. Fuel, Soft Coal.

1914

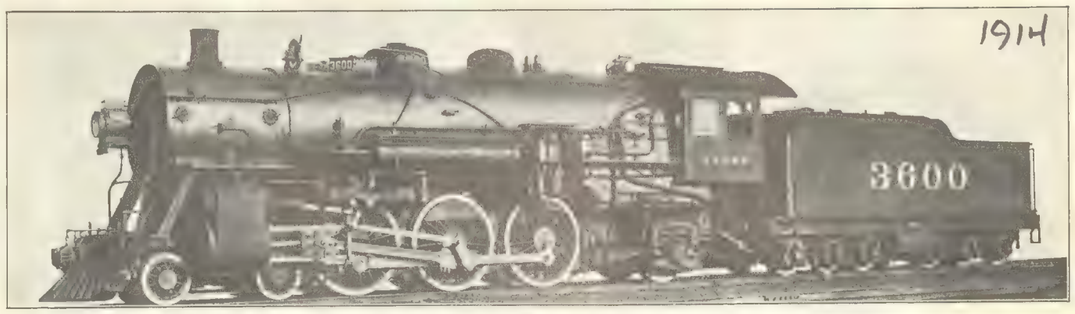
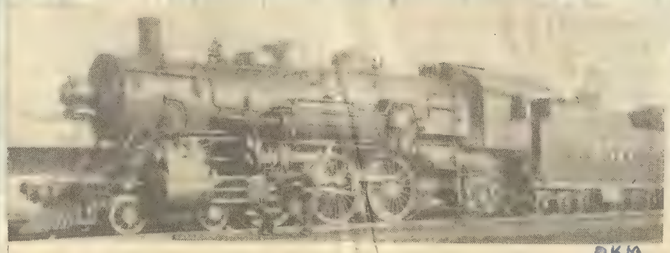


Fig. 69—Pacific Type (4-6-2) Locomotive for Passenger Service. Built for the Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. Cyls., 26 in. x 26 in. Steam Pres., 200 lbs. Dia. Drivers, 73 in. Tract. Eff., 41,000 lbs. Heat. Sur.—Tubes, 4,211 sq. ft.; Firebox, 232 sq. ft.; Total, 4,443 sq. ft.; Sup. Sur., 980 sq. ft. Grate Area, 66.7 sq. ft. Wheel Base—Driving, 13 ft. 8 in.; Total, 35 ft. 3 in. Wt. on Drivers, 172,550 lbs. Total Wt. of Eng., 288,700 lbs. Fuel, Oil. c/n 41812

BACKING DOWN TO COUPLE ON TO THE OIL FLYER
This locomotive pulls the noted train between Tulsa and Kansas City on the Atchison, Topeka & Santa Fe. Brother W. H. Owens, Div. 154, engineer, in the cab.



OKM
T. H. Bateman
SANTA FE'S ENGINE 3517 AT NEWTON, KANS., IN 1920

Billy Lowe
SANTA FE TRAIN 23
Engine 3444 was pulling out of the Union Station at Kansas City, Mo., October 11, 1937,

In 1936 the Santa Fe inaugurated the "Valley Flyer" operating be- Oakland and Bakersfield. Two lite Pacifics, 1369 and 1376 (Baldwin 1913) were prettied up in some silver, red and yellow paint and assigned to handle the train. On left the 1376 keeps to the time table as she hurries the Flyer across the Martinez Trestle.

Santa Fe's 1369, which pulled *Valley Flyer* during 1939 World's Fair.

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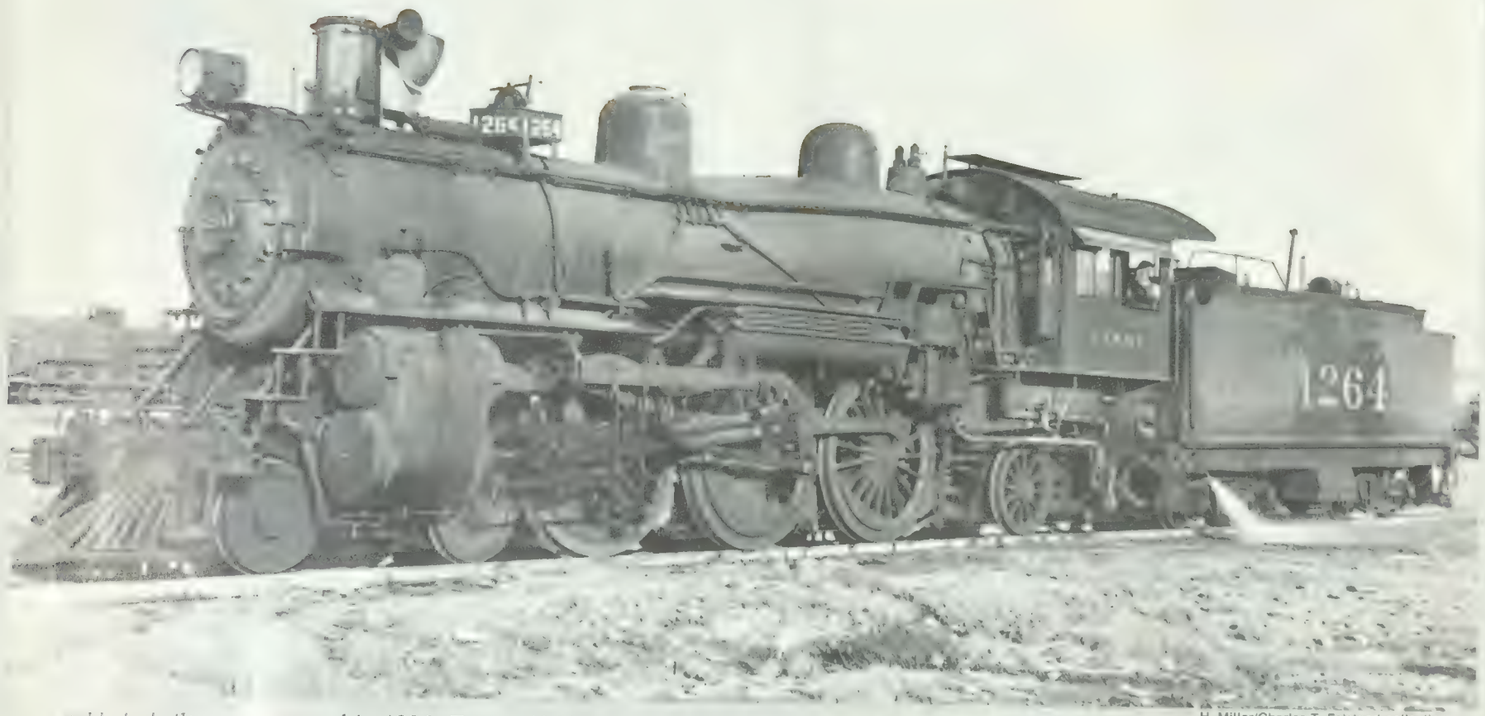
SELLER
DATE
FORM

DESTINATION	Amt.	Com. No.	Clos. No.

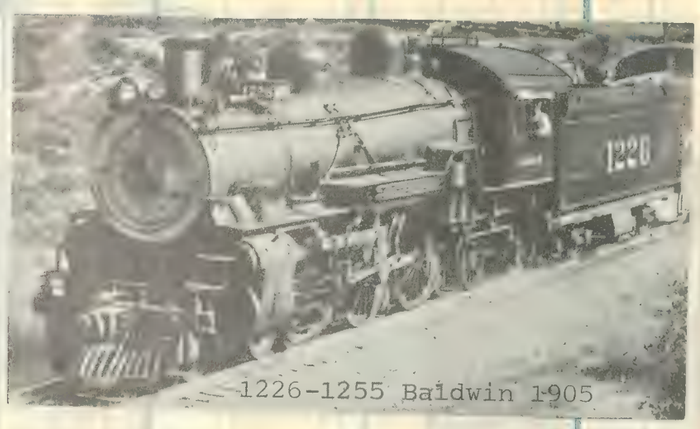
Sold	Amount	Clos. No.	Sold	Amount



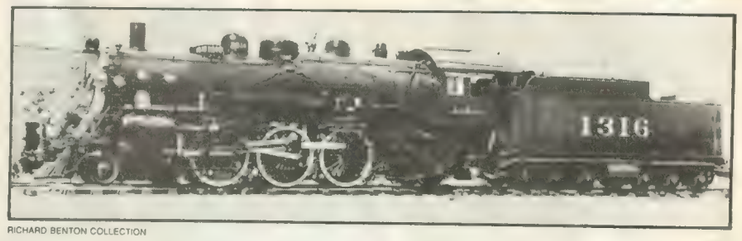
Baldwin-built as a compound in 1906, Engine 1264 was subsequently simpled and superheated, but retained the old-style inside-bear... radial trailing truck. Bakersfield, Cal., December 3, 1938.

H. Miller/Charles T. Felstead collection
1256-1266
c/n 27981

Transcontinental travel participated in costly rail Santa Diego north of El Toro, Cal. on the Fourth Dis- trict of the Los Angeles Division. The engine 1315 is one of the first 4-6-2 Type built for the Santa Fe. Photo by Otto C. Perry.

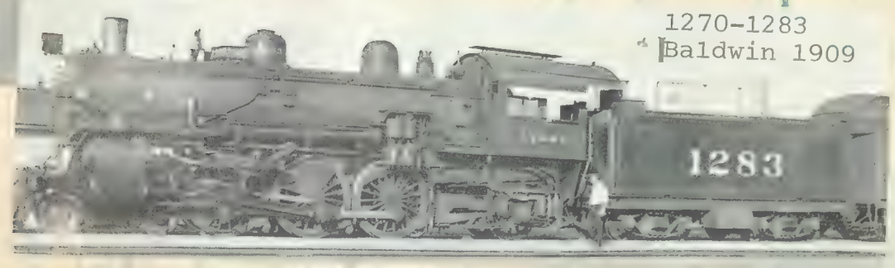


1226-1255 Baldwin 1905



RICHARD BENTON COLLECTION

Now Texas State #500 and operational (1983)



1270-1283
Baldwin 1909

1337-1356
Baldwin 1912
c/n 37859

1309-1336 Baldwin 1911
Rebl t LaJunta 1922
c/n 37311

Fig. 85—Pacific Type (4-6-2) Four-Cylinder Balanced Compound Locomotive for Passenger Service. Built for Atchison, Topeka & Santa Fe by Baldwin Loco. Works. Cyls., 17½ in. and 29 in. x 28 in. Steam Pres., 210 lbs. Dia. of Drivers, 73 in. Tractive Effort, 35,000 lbs. Heat. Sur.—Tubes, 3,088 sq. ft.; Firebox, 237 sq. ft.; Total, 3,325 sq. ft.; Superheater Sur., 806 sq. ft. Grate Area, 57.6 sq. ft. Rigid Wheel Base, 13 ft. 8 in. Total Eng. Wheel Base, 35 ft. 1 in. Wt. on Drivers, 160,900 lbs. Total Wt. of Eng., 276,500 lbs. Fuel, Soft Coal.

at Los Angeles

1386

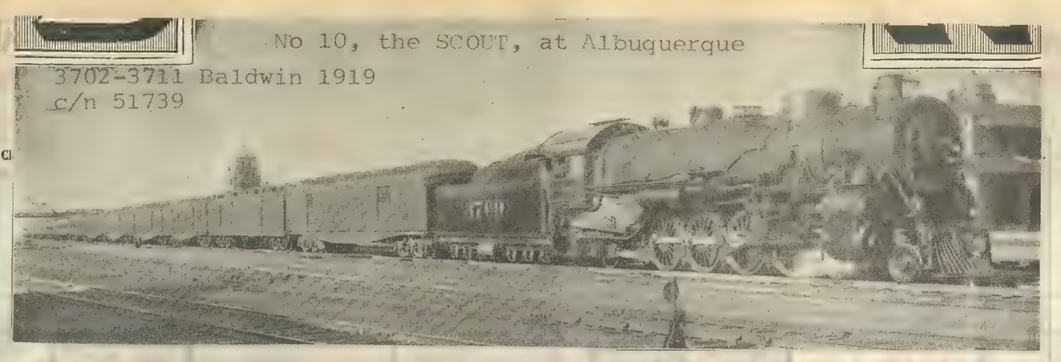
A fifteen-car solid express train leaving Kansas City

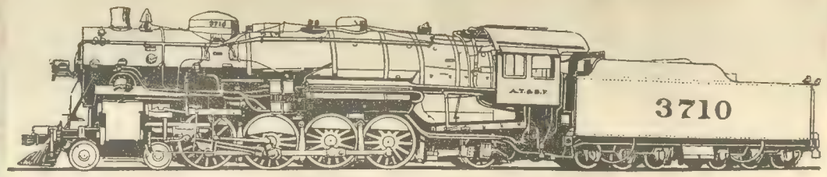
OKM

160

No 10, the SCOUT, at Albuquerque

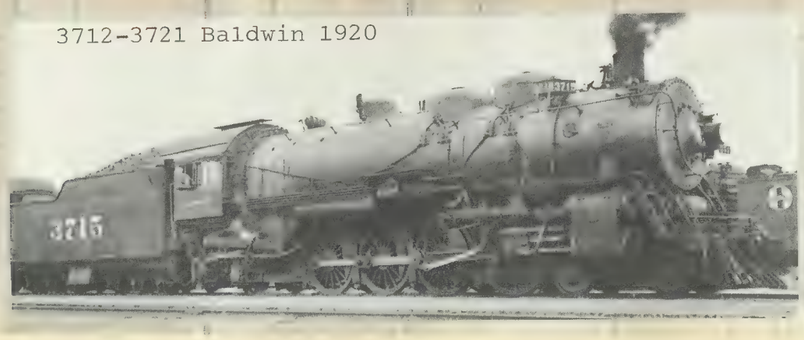
3702-3711 Baldwin 1919
c/n 51739





MOUNTAIN TYPE 4-8-2

3712-3721 Baldwin 1920



Baldwin 1921
3722-3736

c/n 54983

Oil-burning Mountain Type Locomotive, 3700 Class.

Cylinders, 28" x 28"
Driving wheels, diameter, 69"

Weight, total engine, 342,920 lb.
Tractive force, 54,100 lb.

Baldwin 1924
3745-3750

Last order of 4-8-2's received by the Santa Fe c/n 57699

THE LATEST BALDWIN MOUNTAIN TYPE BUILT FOR THE SANTA FE SYSTEM

Cylinders, 28"x28"
Driving wheels, diameter, 69"

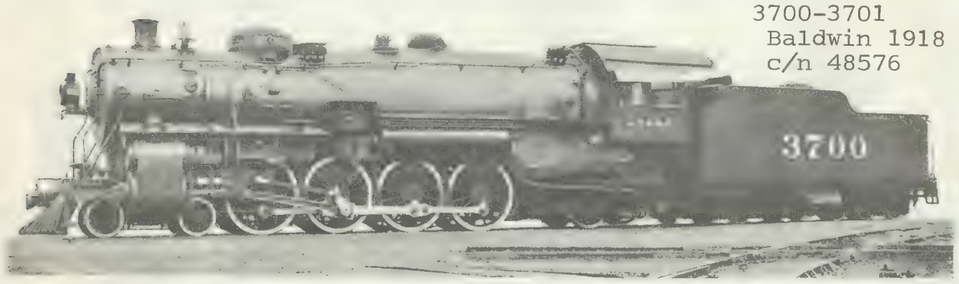
Weight, total engine, 361,600 lb.
Tractive force, 54,100 lb.

3737-3744 Baldwin 1923 Grand Canyon Ltd leaving San Berdoo

All photographs by Lucius Beebe

ATCHISON, TOPEKA AND SANTA FE RAILWAY

3700-3701
Baldwin 1918
c/n 48576



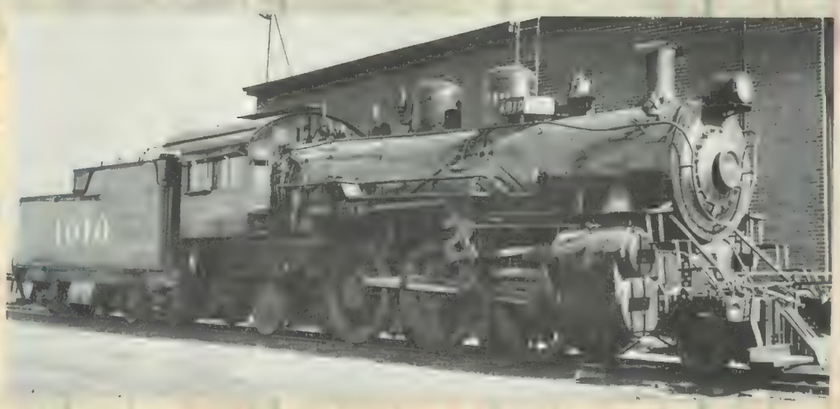
MOUNTAIN TYPE PASSENGER LOCOMOTIVE

6 Locomotives like the above are being fired by Duplex Stokers

Cylinders	28 x 28 in.
Driving wheels, diameter	69 in.
Steam pressure	200 lbs.
Boiler diameter	82 in.
Tubes, length	21 ft.
" number	43—5½ in.
" "	253—2¼ in.
Heating surface, tubes	4,416 sq. ft.
" " fire box	246 sq. ft.
" " combustion chamber	90 sq. ft.
" " arch tubes	38 sq. ft.
" " total	4,790 sq. ft.
" " superheater	1,086 sq. ft.
Fire box	122¼ x 84¼ in.
Grate area	71.5 sq. ft.
Wheel base, driving	18 ft.
" " engine	39 ft.—5 in.
" " " and tender	76 ft.—8⅝ in.
Weight, leading	66,200 lbs.
" driving	232,200 lbs.
" trailing	67,400 lbs.
" engine	365,800 lbs.
" tender	233,700 lbs.
Tender capacity, water	12,000 gals.
" " coal	17 tons
Maximum tractive power	54,100 lbs.
Factor of adhesion	4.29

The 1812, One of the 238 Prairies on the Santa Fe roster, glides thru Saffordville, Kans c 1916. 1800-1840 Baldwin 1906

The 1010 had her day of glory on July 9th 1905 when she raced over the 149 miles of winding trackage from Needles to Seligman with the "Death Valley Scotty Special" in three hours and thirty one minutes at an average speed of 42.4 mph. She still remains on the active roster!!



1135-1152 Baldwin 1903

Smoking out of Kaw, Oklahoma

2-6-2 #1809
4-6-0 #300

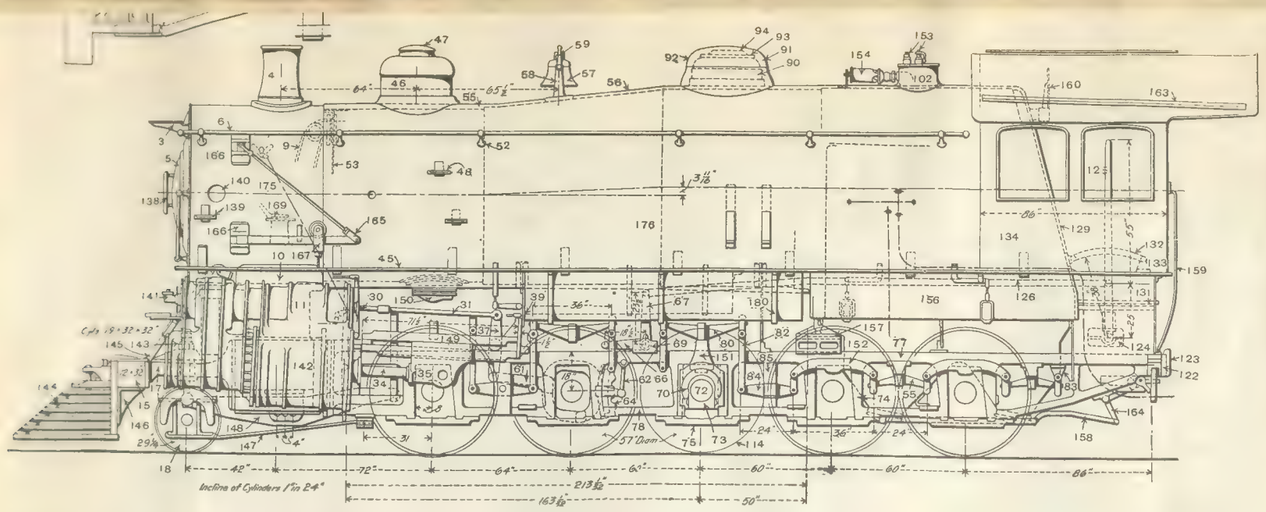
1014--1039

COMPOUND REBUILT AS A SIMPLE

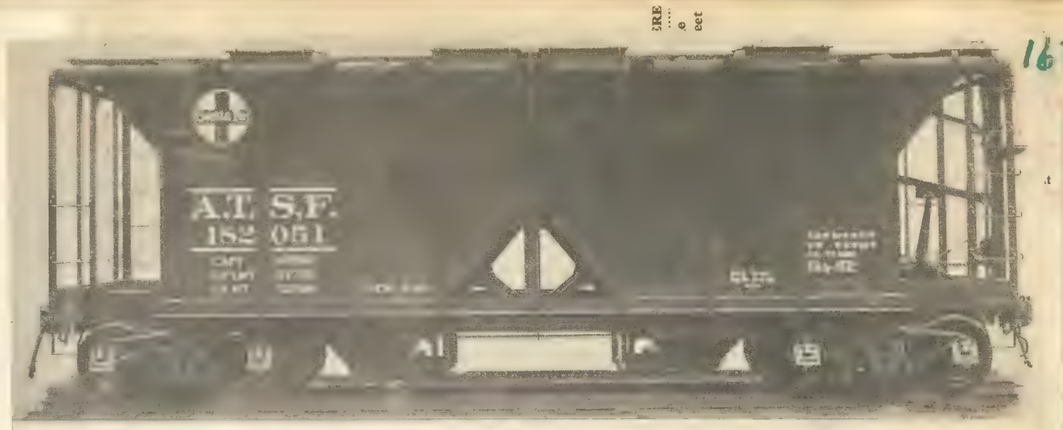
S. R. Wood

Locomotive 1033 of the Atchison, Topeka & Santa Fe line, built by Baldwin Locomotive Works in 1901, has Vauclain compound cylinders 17 and 28 by 28 inches, as shown above, but was rebuilt as a simple at Albuquerque shops in 1914. In the cab is the late Brother O. S. Davis,

1000-1013 Baldwin 1901 c/n 19578 The initial 2-6-2



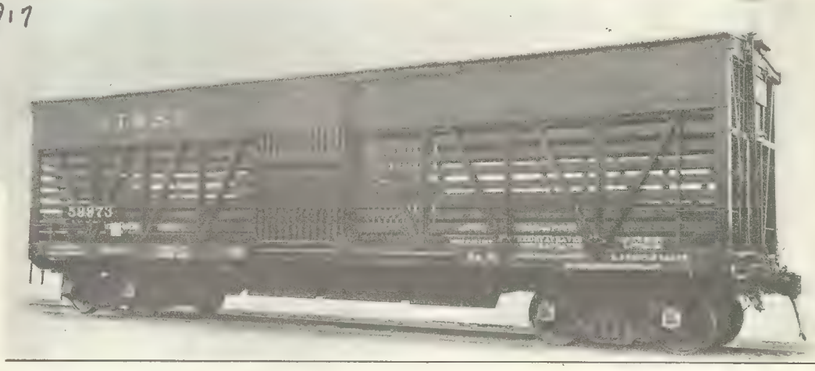
16—Decapod (2-10-0) Tandem Compound Locomotive for Freight Service. Built for the Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works. Cylinders, 19 in. and 32 in. x 32 in. Steam Pressure, 225 lbs. Diameter of Drivers, 57 in. Tractive Effort, 62,700 lbs. Heating Surface—Tubes, 5,156 sq. ft.; Firebox, 234 sq. ft.; Total, 5,390 sq. ft. Grate Area, 58.5 sq. ft. Rigid Wheel Base, 20 ft. 4 in. Weight on Drivers, 237,800 lbs. Total Weight of Engine, 267,800 lbs. Fuel. Soft Coal.



One of the 70-Ton Covered Hopper Cars Recently Built by General American for the Santa Fe

Near Glorietta, Ariz-Crossing N.M.

1917



—Steel Underframe 40-Ton Capacity Stock and Coke Car. Drop Doors Open After Unloading Coal. Builder, Pullman Car & Manufacturing Corporation—Haskel & Barker Plant.

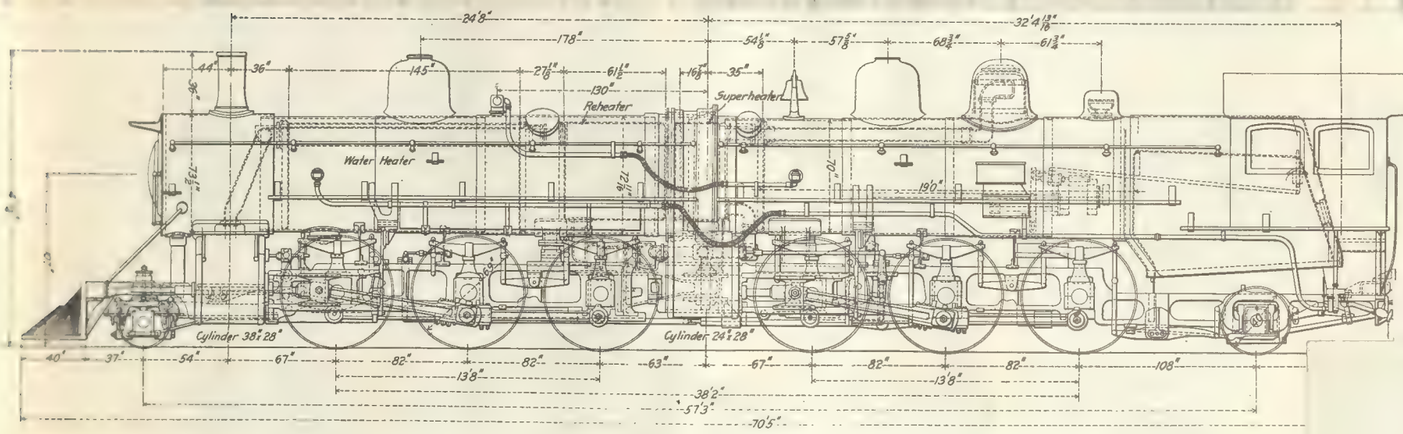
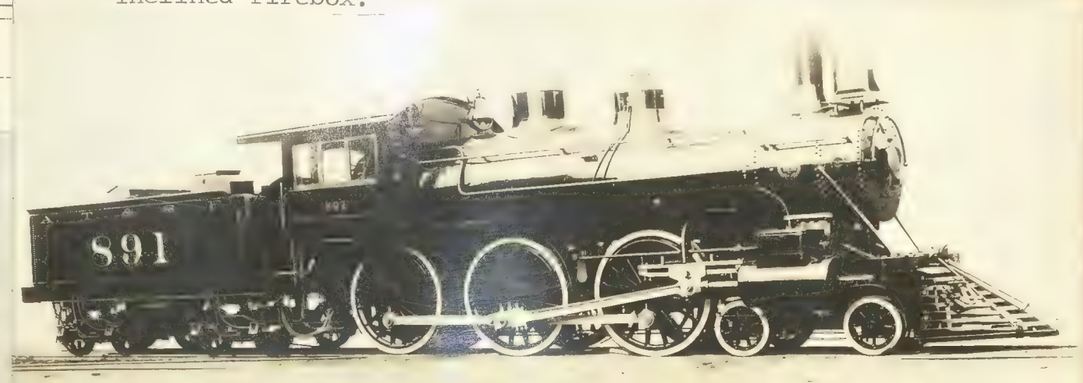


Fig. 136—Mallet Articulated (2-6-6-2) Compound Locomotive with Flexible Boiler for Freight Service.

One of eight (891-898) Ten wheelers delivered by Dickson 1897. Later noed 815,430. c/n 954. Difficult to fire due to sharp inclined firebox.



A turn-of-the-century postcard portrays the Main Street side of Atchison Union Depot. Atchison, Kans. lies on the "Great Western Bend" of the Missouri River. The city was incorporated in August 1855 and named for Missouri Senator David R. Atchison, but is best known to railfans as the birthplace of the Atchison, Topeka & Santa Fe Railway. In September 1860 Cyrus K. Holliday and a few supporters met in Luther Challis' small brick law office and there established the nucleus of the giant Santa Fe System.

Atchison, Kan

ATSF - RI - MoP - CB&Q

Hudson 3450 makes a spectacle of herself taking an excursion across Martinez trestle.

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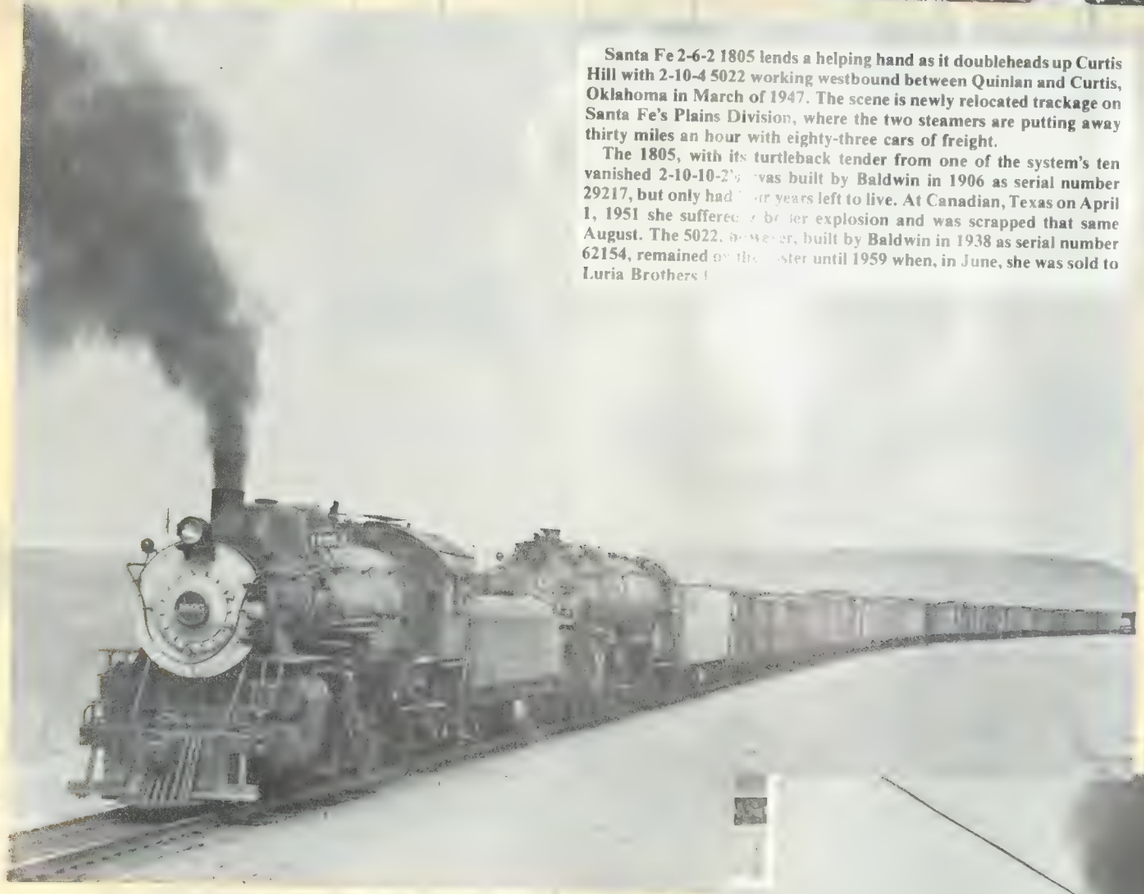
Atchison Topeka and Santa Fe Railway 4-6-4 number 3458, above, pulls into the Spanish-style Berkeley, California station on a hazy spring morning in March, 1949 with the *California Limited*. The Hudson was built by Baldwin in May, 1927 and was a common sight on Santa Fe's Northern California passenger runs during the late forties,



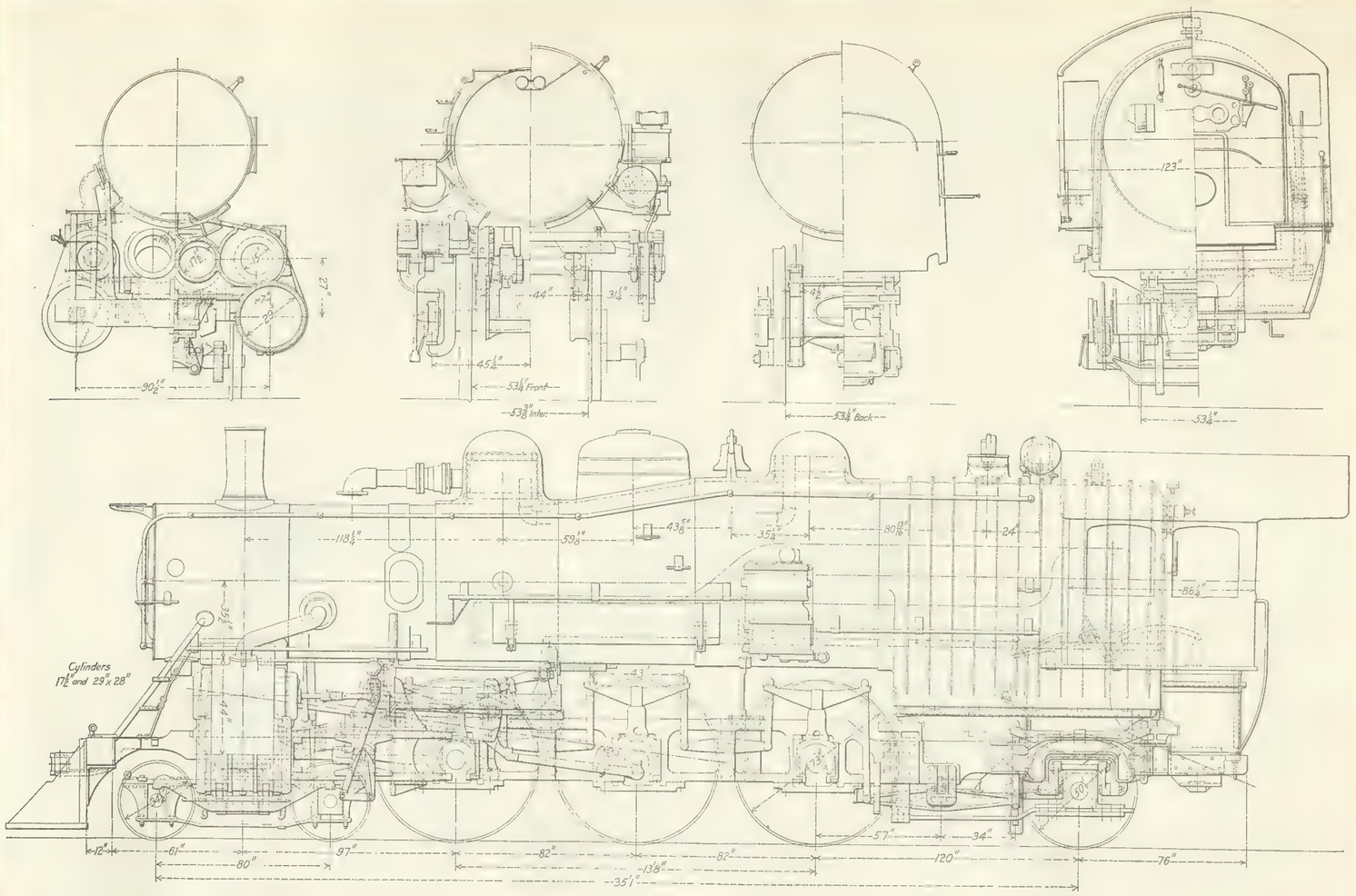
Santa Fe 2-6-2 1805 lends a helping hand as it doubleheads up Curtis Hill with 2-10-4 5022 working westbound between Quinlan and Curtis, Oklahoma in March of 1947. The scene is newly relocated trackage on Santa Fe's Plains Division, where the two steamers are putting away thirty miles an hour with eighty-three cars of freight.

The 1805, with its turtleback tender from one of the system's ten vanished 2-10-10-2's, was built by Baldwin in 1906 as serial number 29217, but only had four years left to live. At Canadian, Texas on April 1, 1951 she suffered a boiler explosion and was scrapped that same August. The 5022, a sweeper, built by Baldwin in 1938 as serial number 62154, remained on the roster until 1959 when, in June, she was sold to Luria Brothers &

AT&SF Photo

Santa Fe class 'CE-6' caboose #999530-999542.

Taking command like a First Sergeant, Mike 4009 cracks the whip as she charges by Lamanda Park tower in East Pasadena with Second #3, the westbound California Limited. No explanation was given other than the regular engine had failed at some point enroute. In such cases the nearest available engine would be secured to complete the run and in this case the 4009 got the call. In that the fireboy has a firm grip on the armrest it's quite apparent the hogger is about to demonstrate just how high a stepper a Mike can be when wheeling the first class varnish!



Atchison, Topeka & Santa Fe four-cylinder balanced compound passenger locomotive No. 1310, equipped with Jacobs-Shupert firebox, built by the Baldwin Locomotive Works in 1911.

Another masterpiece from the lens of Dick Kindig. In the grand tradition three Santa Fe type (Nos 3904, 3928 and 1645) fight up the west side of Raton Pass with 43 cars.

Dick Kindig

From this the glory has departed
And such days we will see no more
The sounds that thrilled our souls is over
That they like to call railroading today
Is a ludicrous, senseless core...???

165

SELLER
DATE
FORM

UNION PACIFIC

UNION PACIFIC SYSTEM
THE OVERLAND ROUTE

"Big Boy" #4010 rides the merry-go-round at Green River enginehouse. Twenty engines (4000-4019) of this new wheel arrangement, 4-8-8-4, were constructed by Schenectady in 1941 for service over the Wahsatch Range between Green River and Ogden. An additional five engines, 4020-4024, received in 1944.

"Big Boy" Locomotive Characteristics

Type	4-8-8-
Cylinders (Four)	23¾ x 32 in
Driving Wheel Dia.	68 in
Boiler Pressure	300 l
Tractive Power	135,750 l
Heating Surface	5,890 sq. f
Grate Area	150 sq. f
Tank Capacity	25,000 Gal 28 Ton
Weight—Engine	762,000 l
Weight—Tender (Full Load)	427,500 l
Weight—Total	1,189,500 l
Length Overall	132 ft. 9 in

Travel by Train

Make the most of your time. See more in less time and in greater comfort. Add days of enjoyment to your vacation or business trips.

Train travel is clean, restful and speedy. Go via Union Pacific.

EDWARD H. HARRIMAN
(1848-1909)

The genius behind the re-making of the Union Pacific. At the turn of the century he was in firm control of the U.P."system" and started a program of improvements and expansion that was to make the U.P. one of the best railroads in the U.S. Also controlled Southern Pacific Lines, the Morgan Steamships, Chicago and Alton, Illinois Central and Central of Georgia.

Edward Henry Harriman. Master of 100,000 Miles of Rail and Ship Transportation, Beyond All Doubt the Most Powerful Figure in Railroad History

No 75, a majestic American, poses on the covered turntable at Omaha. One of five (73-77) constructed by Rogers in 1868. Later noed 659 - 491

"Signals Keep Trains Moving"

The 2906 (BLW 1920) gussied up with a bathtub shroud for the new 49er in 1937

UNION PACIFIC RAILROAD

AFTER the Promontory ceremony, many miles of the Union Pacific had to be rebuilt. In fact, in 1879 the Supreme Court ruled that the actual completion date, as an acceptable railroad, was November 6, 1869. Continuing financial problems forced the Kansas business out of control in 1871. Interests led by Jay Gould and Sidney Dillon took control and ran down the railroad until it went into receivership following the Panic of 1893. To satisfy the road's debt the Government sold it in 1897 at a public auction to E. H. Harriman and his backers, who relied on the strong credit of their Illinois Central. Great sums of money were invested to completely rebuild the property, and by 1901 UP's credit was so good it was able to purchase stock control of the Southern Pacific. Harriman ordered common promotives, rolling stock, and even supporting structures for both roads. He died in 1909 and in 1913 the Justice Department forced Union Pacific [illegible] SP stock

TRAVELED

FAMOUS STEAM-POWERED TRAINS

THE PORTLAND ROSE — THE LOS ANGELES LIMITED
THE OVERLAND LIMITED — THE PACIFIC LIMITED — THE FORTY NINER
THE PONY EXPRESS — THE COLUMBINE — THE CHALLENGERS

GENERAL OFFICERS.

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——, Vice-Chairman Board of Directors	"	
F. W. CARSKE, Chairman Executive Committee	"	
W. M. JEFFERS, President	Omaha, Neb.	
F. W. ROBINSON, Vice-President-Traffic	"	
N. A. WILLIAMS, Vice-Pres.-Operation	"	
H. A. TOLAND, General Auditor	"	
R. R. MITCHELL, Freight Traffic Mgr.	"	
W. S. BASINGER, Pass. Traf. Mgr.	"	
J. W. BURNETT, General Supt. Motive Power and Machinery	"	
B. H. PRATER, Chief Engineer	Omaha, Neb.	
G. L. WHIPPLE, Gen. Supt. Transp.	"	
F. D. COOPER, Gen. Agt. Transportation Department	1419 Garland Building, 58 E. Washington Street, Chicago, Ill.	
E. C. WEBSTER, Manager Dining Car and Hotel Department	Omaha, Neb.	
A. R. MCNITT, General Freight Claim Agent	"	
H. C. FORGY, Supervisor of Mail & Baggage Traf.	"	
E. L. FRIES, Gen. Pur. Agent	"	
C. P. CAHILL, Gen. Manager (Eastern District)	"	
M. M. HINCHEY, Superintendent Car Service	Omaha, Neb.	
E. J. DOOLIN, Auditor of Equipment Service Accounts	"	
W. H. GUILD, General Manager (South Central District)	Salt Lake City, Utah.	
T. S. KINNERSLEY, Superintendent Car Service	"	
F. H. KNICKERBOCKER, Acting Gen. Manager (Northwestern District)	Portland, Ore.	
P. J. LYNCH, Superintendent Car Service	"	

1940

GENERAL OFFICES, 1416 DODGE STREET, OMAHA, NEB.

Miles of road operated, 9,908.86. Locomotives (coal burning, 1,079; oil burning, 388; electric, 1; diesel, 7), 1,475.

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Union Pacific Trains Use These Stations

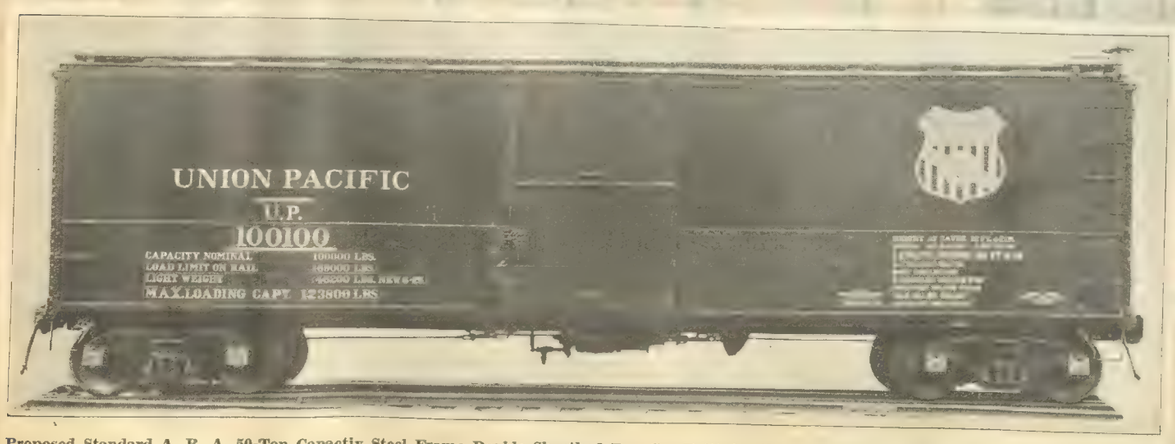
Boise, Idaho: Union Pacific Station.
Butte, Montana: Union Station, 820 East Front Street.
Cheyenne, Wyoming: Union Pacific Station, 15th Street at Capitol Avenue.
Chicago, Illinois: C. & N. W. Terminal, Canal and Madison Streets.
Denver, Colorado: Union Station, Foot of Seventeenth Street.
Kansas City, Mo.: Union Station, Main Street and Union Station Plaza.
Los Angeles, Calif.: Los Angeles Union Passenger Terminal, Alameda and Aliso Streets.
Oakland, Calif.: Southern Pacific 16th Street Station, Foot of 16th Street.
Oakland Pier, Calif.: Southern Pacific Terminal.
Ogden, Utah: Union Station, 25th and Wall Streets.
Olympia, Wash.: Union Pacific Station. Corner 4th Avenue and Adams Street.
Omaha, Nebraska: Union Station, 10th and Marcy Streets.
Pendleton, Oregon: Union Pacific Station, Corner Main and Railroad Sts.
Pocatello, Idaho: Union Pacific Station, Foot of West Bonneville Street.
Portland, Oregon: Union Station, Northrup and Johnson Streets.
Riverside, Calif.: Union Pacific Station, 7th and Vine Streets.
San Bernardino, Calif.: Union Station, West Third Street.
San Francisco, Calif.: Ferry Depot, Foot of Market Street.
Salina, Kansas: Union Station, 200 North 13th Street.
Salt Lake City, Utah: Union Pacific Station, South Temple and Third West Streets.
Seattle, Wash.: Union Station, 4th Avenue, South, and Jackson Street.
Spokane, Wash.: Union Station, Corner Trent Avenue and Washington Street.
St. Louis, Mo.: Union Station, 18th and Market Streets.
Tacoma, Wash.: Union Station, 1713 Pacific Avenue.
Topeka, Kansas: Union Pacific Station, Railroad and North Jackson Streets.
Yakima, Wash.: Union Pacific Station, West Yakima and South Second Ave.

Pine Bluffs, Wyo.

UNION STATION BUILDING OF MODERN DESIGN AT OMAHA, NEBRASKA

Route of the
Los Angeles Limited

Pacific type #130 is handling Trn #7, the westbound "Los Angeles Limited", over the Nebraska Division. Line double tracked in 1910.



Proposed Standard A. R. A. 50-Ton Capactiy Steel Frame Double Sheathed Box Car Built for the Union Pacific System by the General American Car Co., Chicago.

Underwood & Underwood

A Pageant of the Overland Trail—the Pioneer Trapper, the Pony Express, the Prairie Schooner and One of the Union Pacific's New Mountain Type Locomotives

July 1923

Clas. No.

IN the early 1900's Fred Jukes recorded the dawn of the Golden Age of Overland Route passenger service. UP 4-6-0 1856 leads 12 cars east out of Rawlins, Wyo., over single track main line.

168

OVERLAND LIMITED

c1915

OKM

The OVERLAND LIMITED went into service in 1896 replacing the old Overland Flyer on the Chicago-Oakland run.

A Vauclain compound Ten wheeler #1848 [Baldwin 1900] does the honors on a westbound limited near Rawlins, Wyo. Note grade stakes for the second main track.

On the Kansas Division of the Union Pacific, showing splendid equipment, perfect double track and Automatic Electric Block Safety Signals.

OKM

In 1912, already an experienced photographer, Harvey E. High captured Union Pacific Engine 8, a high-stepping Atlantic type, leaving Ellsworth, Kan. with a nine car train. The third car, a lone steel Harriman standard coach, is an indicator of a new passenger equipment era.

ROAD-BED BALLASTED WITH SHERMAN GRAVEL

This gives an excellent smooth and practically dustless road-bed. Analysis has shown that this gravel contains gold to the value of 8s. per ton.

169

Husky cap-stacked Consolidations 1635 and 1625 — Baldwin Vauclain compounds both — stand over the ash pit at Laramie, Wyo., in 1902. In their day they were as enormous as UP's Big Boy 4-8-8-4's are in ours.

Eighty built, noed 1620-1699. Later 400-479

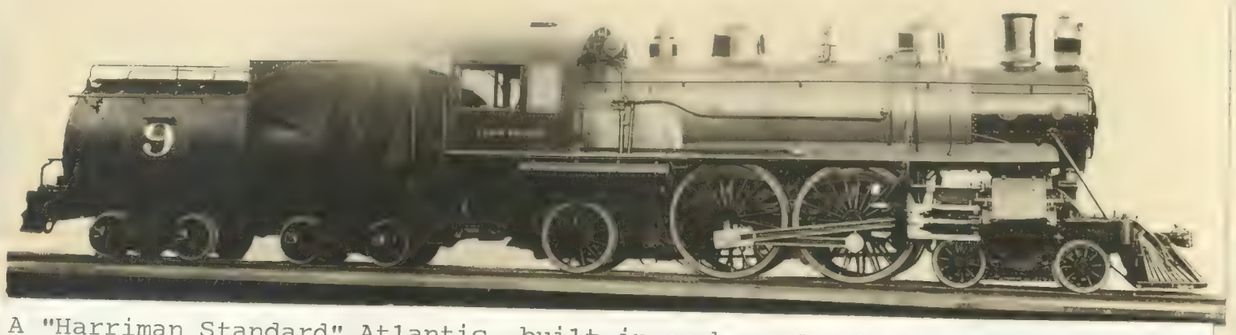
THE WEBER BRIDGE AND TUNNEL, UTAH.

THE ENTRANCE TO THE OVERLAND ROUTE: THE HUGE STEEL BRIDGE OVER THE MISSOURI RIVER CONNECTING COUNCIL BLUFFS WITH OMAHA.
The Bison's Head on the top is symbolical of the West.

1750' long Blt 1886

A GLIMPSE OF THE DOUBLE TRACKING NEAR KEARNEY, NEBRASKA.
Showing new automatic electric block safety signals. The cost of installing this signalling is approximately £300 per mile, while the cost of maintenance is about £30 per mile.

In 1887 Rogers built ten (761-770) of these wide firebox 4-4-0's for burning Wyoming realestate. Rebuilt with convential fireboxes 1891-92. In 1898 were renumbered 831-840.



A "Harriman Standard" Atlantic, built in numbers for both the S.P. and U.P. Systems. #9 (1-10) built by Baldwin 1903, later 3308. c/n 23358

One of the U P's first Pacifics, org No 115, blt by Baldwin 1903, c/n 23460

THE much-decorated locomotive was once a frequent railroad spectacular in which Union Pacific indulged as much as anyone else — at least to judge by the sight of Pacific 2814 all dressed up to haul a Kansas Division employee picnic special. Circular emblem on Vanderbilt tank declares, "100 per cent American. . . . We lay our cards face up on the table. . . . A day's work for a day's pay." Perhaps the artist is gentleman between tall 77-inch drivers.

Lima 1914 745-759
renoed 2245-2259

c/n 1449

Fig. 40—Mikado (2-8-2) Locomotive for Freight Service. Built by the Lima Locomotive Corporation for the Union Pacific. Cylinders, 26 in. x 28 in. Steam Pressure, 200 lbs. Diameter of Drivers, 63 in. Tractive Effort, 51,075 lbs. Heating Surface—Tubes, 3,986 sq. ft.; Firebox, 235 sq. ft.; Total 4,221 sq. ft. Superheater Surface, 865 sq. ft. Grate Area, 70.4 sq. ft. Wheel Base—Driving, 16 ft. 6 in.; Total, 35 ft. 2 in. Weight on Drivers, 210,200 lbs. Total Weight of Engine, 282,000 lbs. Fuel, Soft Coal.

Clos. No. | Sold | Amount | Clos. No. | Sold

Otto C. Perry.

In 1931 the Overland featured a valet, barber and shower baths. On this February day of that year, Union Pacific 4-6-2 No. 2886 was hitting 50 miles an hour on her way west to Cheyenne.

Trn #1

Cleaning up in Wyoming 1949

Arthur Stensvad, P. O. Box 634, North Platte, Neb.

RE: Short Sheet

los.No.

Along the main line of the Union Pacific.

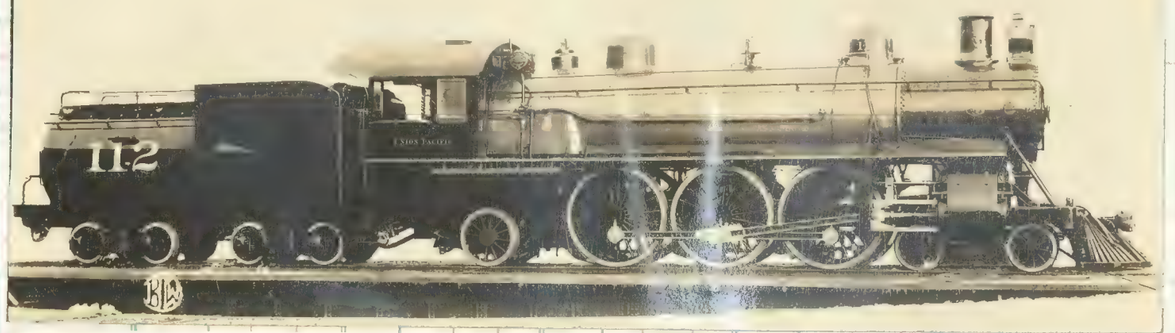
Engine No. 2870, a Pacific or 4-6-2 type with an enlarged stack, brings the *Omaha Boosters Special* into North Platte, Neb., on May 5, 1941. Here, along the original transcontinental railroad of the United States, may be seen continuous train movement, for the Union Pacific is one of the busiest railroads in the country. North Platte is close to the junction of the North and South Platte rivers, from whose banks extend the large ranches of the alfalfa region. The steam above the baggage car is from the relief valve of the turbine used in the head end system of lighting.

Wm. M. Jeffers Retires As U.P. President 1946

Since the first of February, a familiar and beloved figure in railroad circles has been enjoying life from the sidelines. William M. Jeffers observed his 70th birthday January 2, and this milestone was instrumental in bringing about his decision to retire as president of the Union Pacific Railroad, a chair he had held since October 1, 1937. His entire railroad career was spent with the U.P. Needless to say, the company's Board of Directors "acceded to Mr. Jeffers' request with great reluctance and only because of his insistence and his assurance that he would continue as a member of the Board of Directors."

WILLIAM M. JEFFERS

"Bill" Jeffers can reminisce on a colorful career during his leisure days ahead. Born in 1876 within sight of the U.P.'s main line in North Platte, Neb., he began his railroad career on the bottom rung of the ladder as a call boy at the age of 14. He subsequently held positions as clerk, timekeeper, foreman, telegrapher, train dispatcher, chief dispatcher, superintendent, general superintendent, general manager, operating vice president and executive vice president before his election to the presidency. During World War I, under federal management of the nation's railroads, he served as vice president of the U.P. During World War II, he devoted a year in government service in Washington, where he set up a program for the manufacture of synthetic rubber. During his service as a telegraph operator, he joined the telegraphers union and to this day carries his card in the ORT.



The initial design of the "Harriman" Pacifics. Similiar engs were built for the OWRR&N, OSL, LA&SL, SP, T&NO, C&A, IC. The 112 carried a price tag of $19,678 and was delivered by Baldwin in 1903 the first 4-6-2's for the U.P., later renoed 2811, c/n 23417

The big storm of early January in 1949 that tied up the Nebraska and Wyoming divisions

THE PACIFIC LIMITED OKM

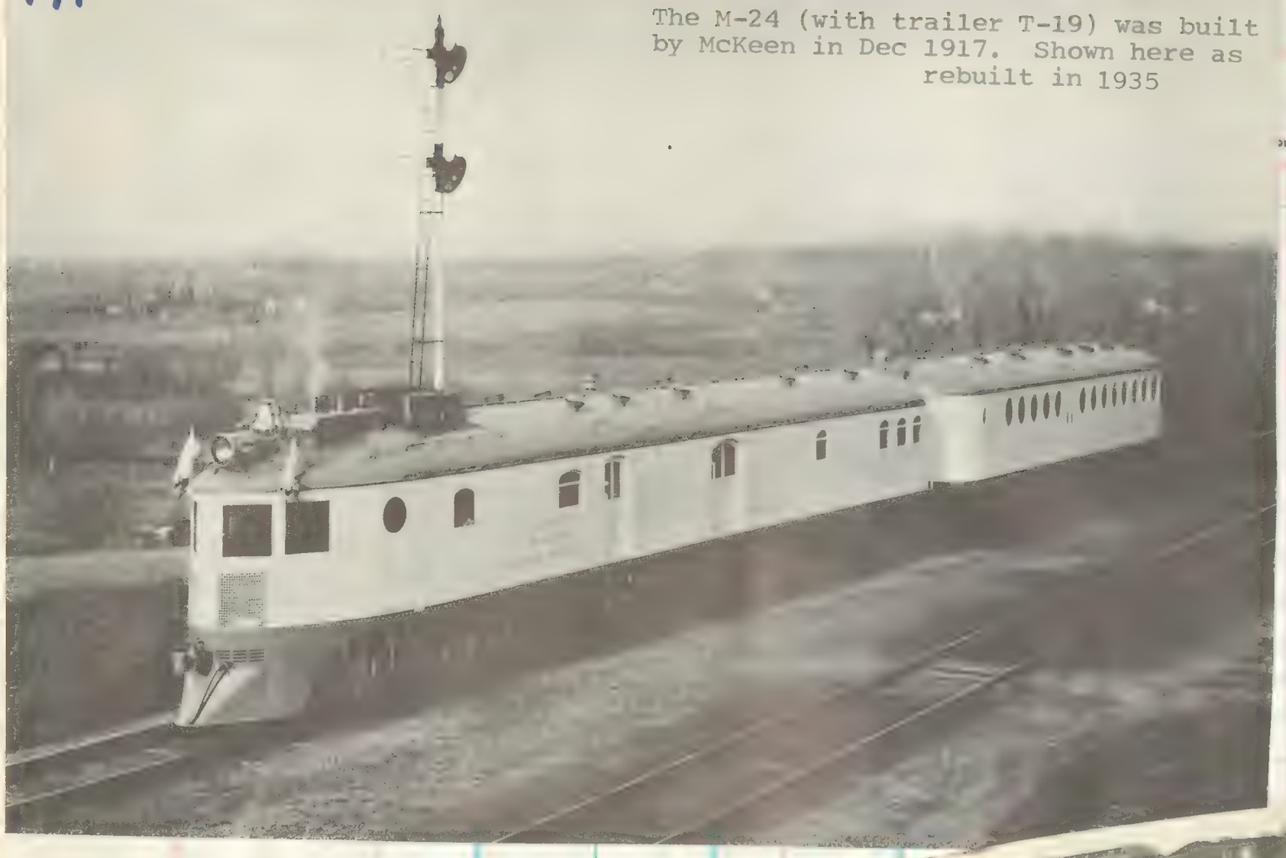
Union Style "B" Signals on Union Pacific Main Line near Lawrence, Kansas

Lane cut-off. Opened on May 16, 1908, the cut-off was built approximately on the line originally surveyed by Peter Dey and changed by Silas Seymour. Even with 20th century engineering capabilities, the project — one of Harriman's largest — required nearly 4 years to complete. Numerous cuts, fills, and bridges saved 9 miles of distance and cut the grade in half.

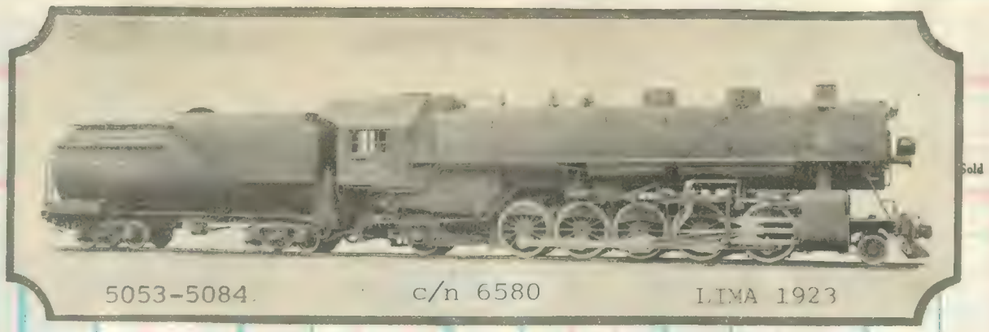
THE BIG PAPIO EMBANKMENT ON THE LANE CUT-OFF. Blt 1908

This improvement, 12 miles in length, cost £500,000, and saves 9 miles in distance.

171

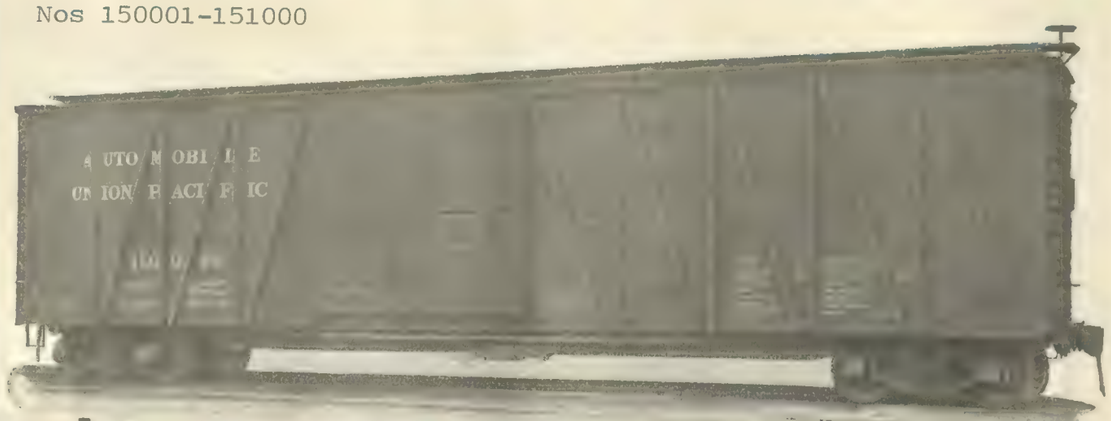


The M-24 (with trailer T-19) was built by McKeen in Dec 1917. Shown here as rebuilt in 1935



5053-5084 c/n 6580 LIMA 1923

Nos 150001-151000

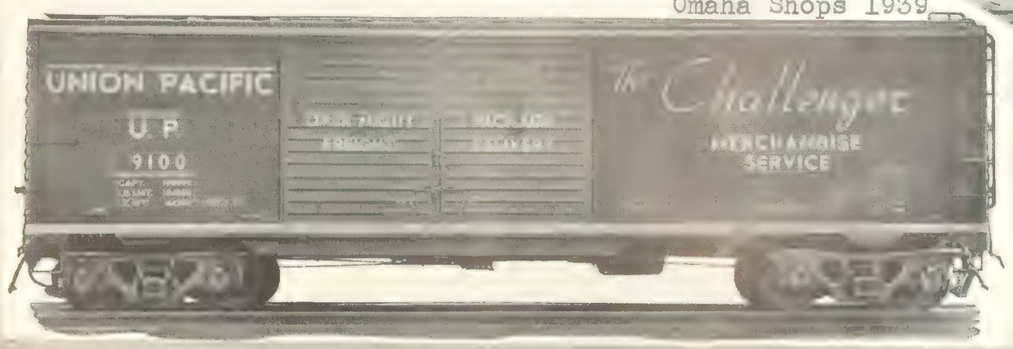


BLT MAY 1922

This Train Carries Merchandise Nearly Five Hundred Miles in One Night

(1939)

One of the 100 hi-speed Merchandizer cars blt at the Omaha Shops 1939

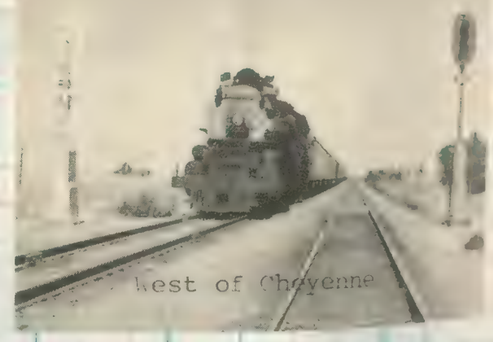


Baldwin 1904

This sightly little U. P. 2-8-0, No. 353, is streaking from Greeley, Colorado, on the main line, to Cloverly on the Pleasant Valley Branch with a lone car of what appears to be redball merchandise tailing a crummy. Here is visual proof that not all the interesting speed shots of railroad are of celebrated varnish hauls or 110-car drags powered by a brace of Mallets.

ON THE LONE PRAIRIE

In the endless high country of the West, you can often see a train coming for miles, like a determined caterpillar crawling steadily across the dusty range. Here it is a Union Pacific freight; the setting is the roofless, unwalled, windy and parched plain of eastern Wyoming. The train is so far away that the spurt of steam has vanished before you hear the whistle.



West of Cheyenne

Gen Amer Car

12,500 gals

50-Ton Capacity Tank Car.

This inspiring painting By artist Kotowski is correct in all detail except the train is No. 69 rather than No. 70. Painting is taken from a photo by R. P. Olmsted made on December 15, 1950 west of Bonner Springs, Kans.

No 40, the eastbound "Kansan" accelerates out of Lawrence, Kan as Rock Island Extra 5109 stands into clear.

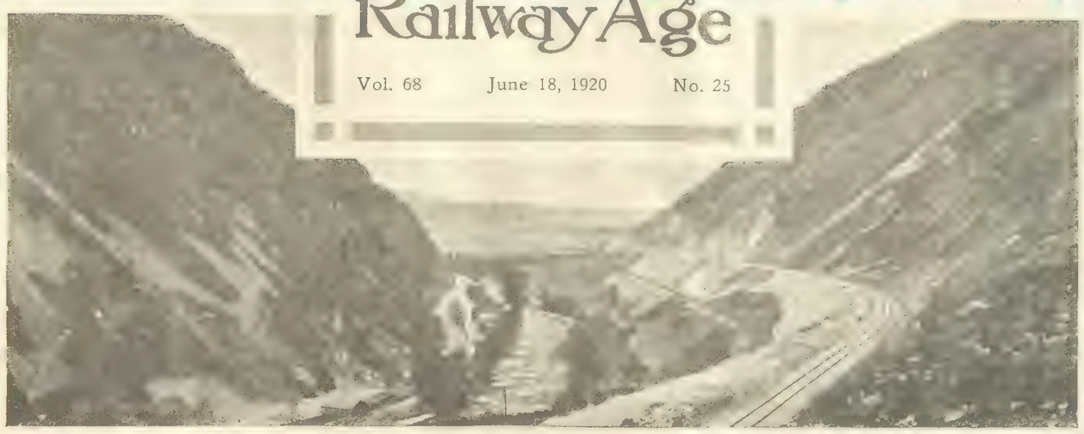
Constructing the Lane Cutoff, c 1907

173

ON CRISP October 18, 1956, Union Pacific Extra 242 East out of Ogden, Utah, crosses over to the eastbound main and starts up Weber Canyon — with an elephant-eared Challenger tied to its tail to keep the oil warm in the journals of those reefers. Helper carries marker lanterns on her tank for return trip down mountain, a journey sister in background (near signal bridge) has almost completed. Wonderful day, wonderful land, great engine.

Just east of Ogden, eastbound and westbound main lines separate. Westbound line is in foreground; low-grade eastbound line beyond.

Richie, courtesy American Locomotive



Railway Age

Vol. 68 June 18, 1920 No. 25

In Weber Canon, Utah, on the Union Pacific.

"ON UNION PACIFIC SYSTEM"

UNION PACIFIC TRAIN PASSING THROUGH WEBER CANYON, UTAH

8324. Tunnel No. 3, Weber Canyon, Utah.

7191. Overland Limited in Weber Canyon, Utah.

DOUBLE TRACK

A few miles east of Ogden, Utah, the Union Pacific double tracks pass through Weber Canyon's impressive series of gorges in the Wasatch Range

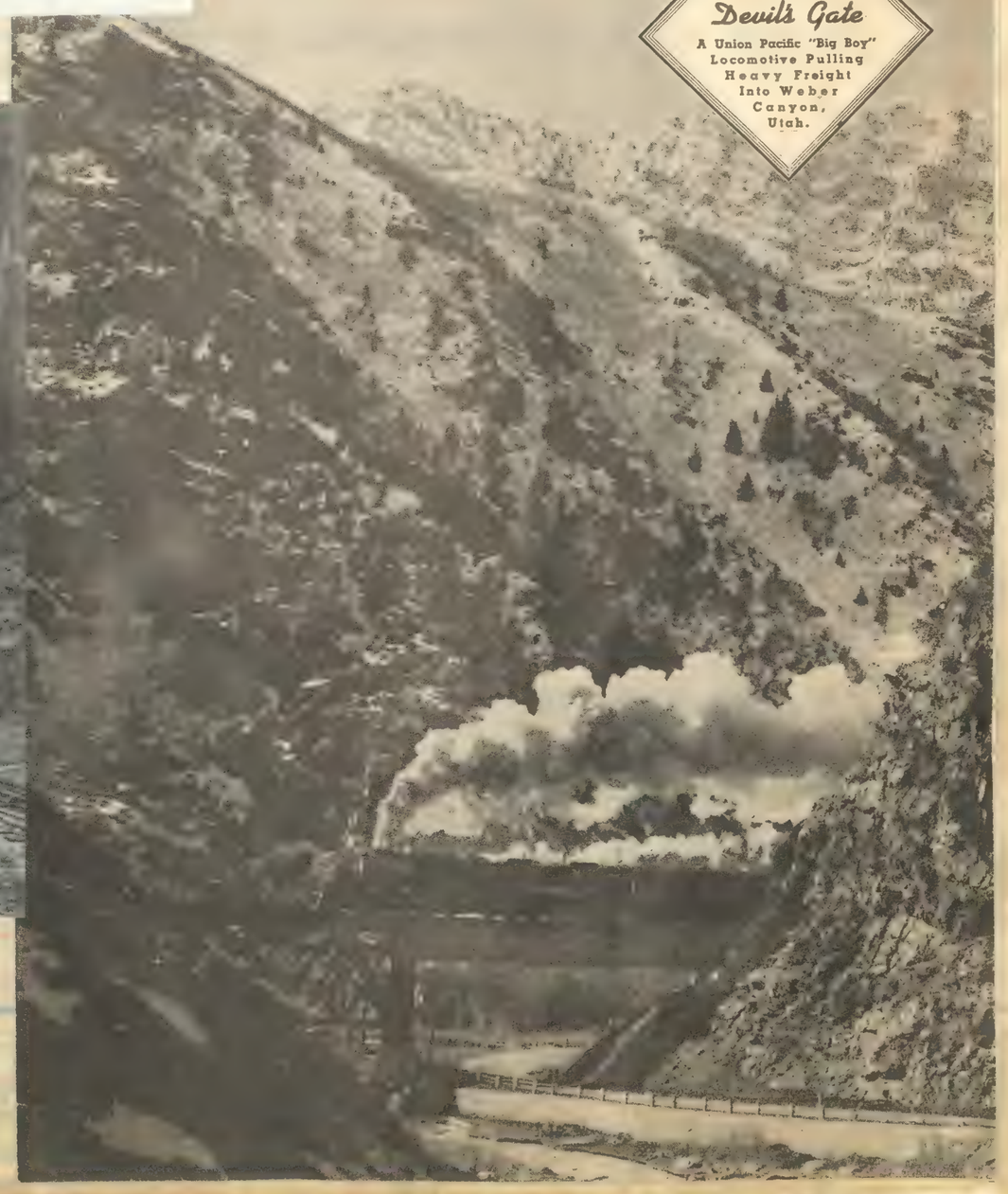
Richard H. Kindig

On September 1, 1947, 5000 and 5528 blasted across Devil's Gate Bridge in Weber Canyon, running left handed to take advantage of the more favorable gradient on the 1.14 percent grade which prevails from Ogden to Wasatch. The line through Echo and Weber Canyons had challenged the UP since it was constructed, and generations of successively larger locomotives from Vauclain Compounds to 4-8-8-4's had cut their teeth on what was to be the last helper district between Omaha and Ogden, one whose grade was all the more irksome as it worked against the predominant movement of tonnage from west to east.

The presence of the 2-10-2's long after articulateds had become dominant power on this stretch was explained by the great power shortage which occured that year, but it is somehow fitting that it should occur just three decades after the 5000 itself, fresh from the Baldwin erecting floor, showed its mettle by moving an 1800 ton train up the grade and generating an astounding 2940 horsepower at 30 miles per hour. Perhaps the 5000 is aware of this as she leads some 65 PFE's east along what has been a path of Manifest Destiny since the days of the Mormon wagon trains.

Passing Devil's Gate

A Union Pacific "Big Boy" Locomotive Pulling Heavy Freight Into Weber Canyon, Utah.



TRANSCONTINENTAL TERMINUS, this view taken around 1870 shows the roundhouse and shops of the Union Pacific located at Omaha, Nebraska. All supplies and equipment were brought to Omaha by boat, or ferried across the Missouri River from Council Bluffs, Iowa, until the big bridge was built in 1872. The exception to this was the occasion when the river froze over and temporary piling, driven through holes cut in the ice, carried the trains across on a wooden trestle that was removed before the spring thaws set in.
(Courtesy of Union Pacific Railroad)

Union Pacific construction train, 1868.

Union Pacific

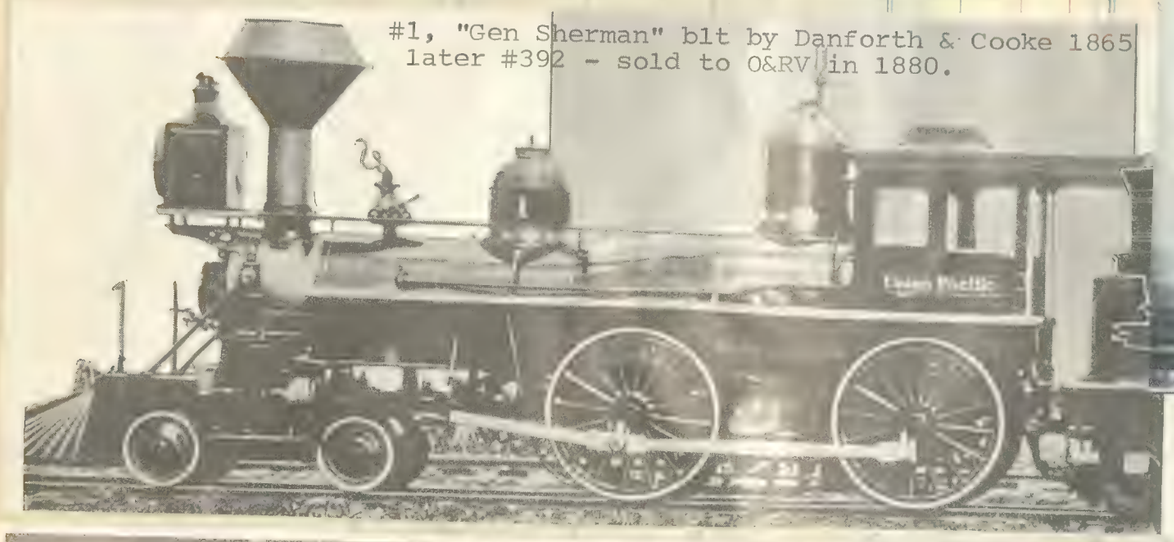
A. C. Kalmbach collection.

UP depot, Omaha, in 1868.

1869 To get through, even with curves and grades, was an achievement.

One of the handsome Schenectadys delivered in 1867

#1, "Gen Sherman" blt by Danforth & Cooke 1865
later #392 - sold to O&RV in 1880.



Sherman, Wyo 1869

GENERAL GRENVILLE DODGE (1831-1916) in 1866 brought considerable railway surveying and engineering experience as well as a distinguished Civil War combat record to his job as chief engineer of the Union Pacific, succeeding Thomas C. Dey, who had resigned when Durant changed the route out of Omaha. Even though Dodge had no control over the contractors, he was an able administrator who had the trust of all parties involved and was a stabilizing influence during confrontations between the Durant faction and Ames faction. Because the Durant and Ames interests were receiving fixed subsidies per mile and were making their profits from the construction companies preferred routes that could be built expediently and required the least grading, and if such routes covered extra miles, why they also added bonds and land grants. Although Dodge himself did not prove as outraged by line changes as Dey, he finally held his ground both verbally and figuratively, in a showdown before General Grant when Durant proposed to enter Salt Lake City instead of Ogden. After Promontory, Dodge spent nearly a year bringing the UP up to standards. His reputation was untarnished through the Credit Mobilier scandal, and he spent many more years helping to build western railroads.

Engine terminal at Laramie 1868

The passenger depot Laramie 1868

116-120 Rogers 1868 Later #343 Retire 1903

Courtesy of the Union Pacific

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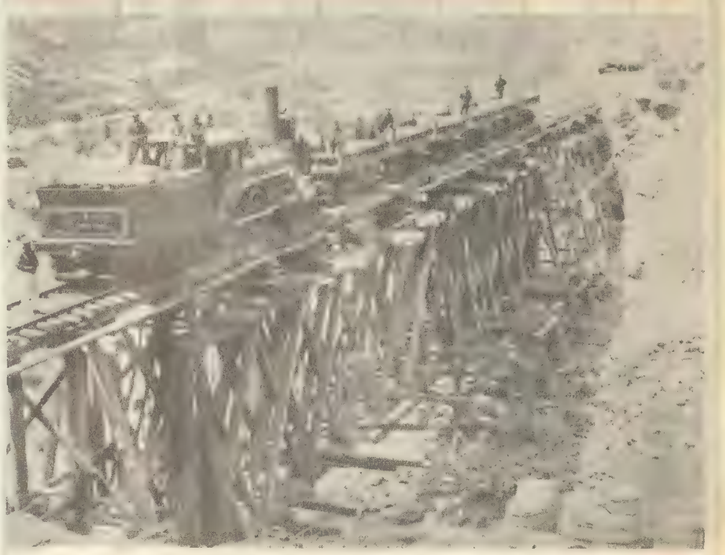
WINNING THE WEST, the locomotives of the Union Pacific paved the way for settlers and civilization between the Missouri and the Great Salt Lake. No creation of man has so captured the fancy as the steam locomotive and the graceful lines of the engines constructed between 1860 and the end of the century are thought by many to be the most pleasing ever to emerge from the drawing boards. A prime example of this captivating style was Union Pacific's Engine, 82, a 4-4-0 built by Hinkley & Williams in 1868. This American Standard had 17 x 24 inch cylinders and 54 inch drivers, the engine alone weighing 54,000 pounds. This photograph was taken when the 82 was in helper service between Echo, Utah, and Evanston, Wyoming; note the hewn ties and poorly-ballasted track, and the crooked, splintered sticks of cottonwood fuel piled on her decorated tank. Railroading in the era was a young man's game, as indicated by the youthful appearance of the runner with his arm draped nonchalantly over the 82's valve stem. The hazards of operation cut down many railroaders in their prime and of the many boys who climbed aboard the iron horse only a few survived the dangerous conditions to become greybeards. Wrecks, explosions, accidents, and exposure took a high toll and the graveyards of the West are heavily populated with those brave men who cashed in while keeping the wheels rolling.



Straight-stacked 4-4-0 No. 122 of the Union Pacific on Devil's Gate Bridge work train in Wyoming.

Jack Casement, crew boss who made the men earn their $3 a day.

It took a tough, hardy breed of men to push the rails west. That looks like the boss, Jack Casement, at lower left.

Construction at Green River.

Citadel Rock at Green River, Wyo., is today a scenic landmark on the Union Pacific and it looked much the same in early 1869, when the new railroad had just pushed through and the stone abutments for the Green River bridge were under construction. Green River is today an important division point, and the huge new 4-8-8-4 articulateds operate out of here.

c/n 544
to OSL #6

Engine 45 was built by the Grant Locomotive Works in 1867, had 16 x 24 inch cylinders and 61 inch drivers. She was sold to the Oregon Short Line in 1882.

Promontory town was a desolate spot shortly after the rails were joined. In 1903 a rail shortcut bypassed the town and in 1942 its last rails were removed.

Just before the gold spike ceremony at Promontory, soldiers happened through by chance and added an air of orderliness to an otherwise confusing situation on May 10, 1869, as the Central Pacific and Union Pacific joined to create a transcontinental railroad.

Engine 119 on Promontory Trestle
1 8 6 9

Last rail is in place and the workers cleared out to make room for the distinguished visitors in the Union Pacific party. A dispute on details of the ceremony almost got out of hand and at one time it appeared that there wouldn't be any.

Sidings at Promontory

CUT HERE To Make Short Sheet

#7000 Schenectady May 1922 c/n 63244

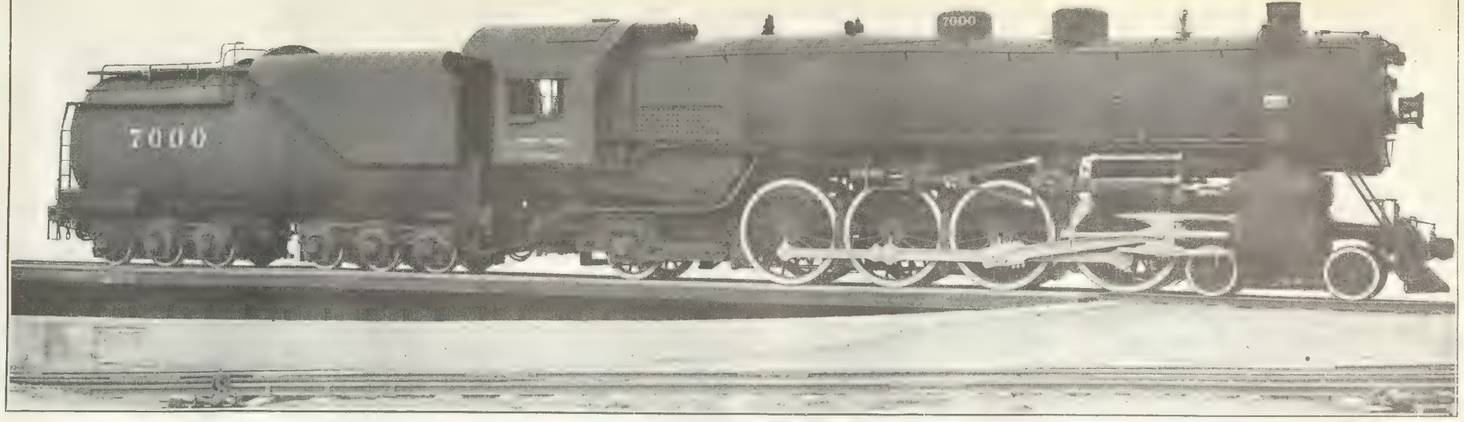
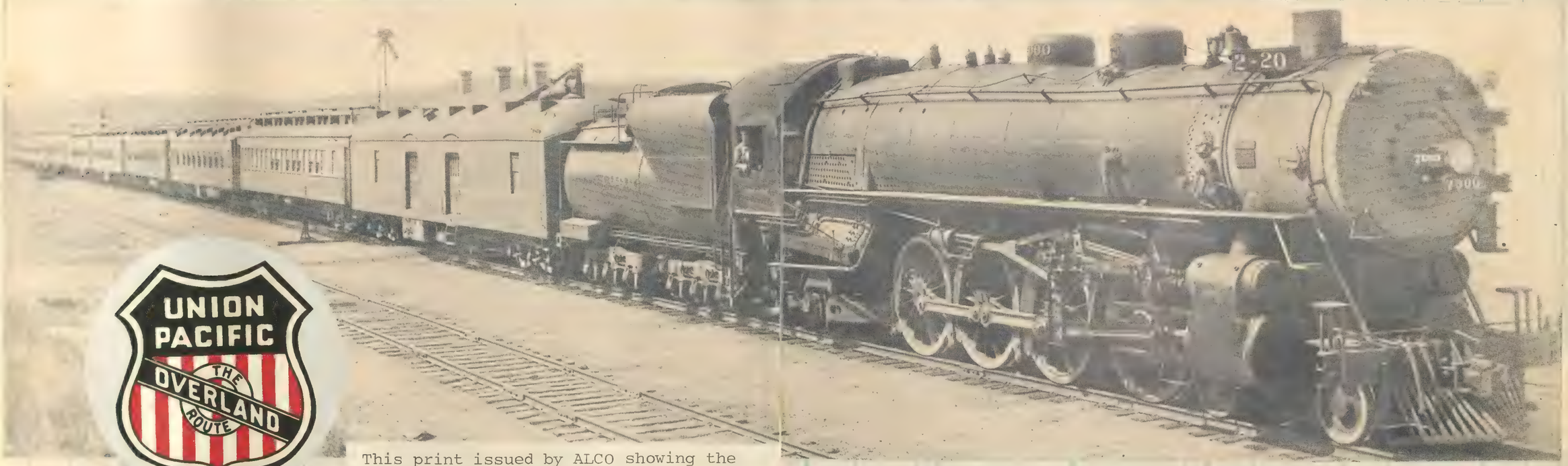


Fig. 164—Mountain (4-8-2) Locomotive for Heavy Passenger Service. Built for the Union Pacific by the American Locomotive Company.

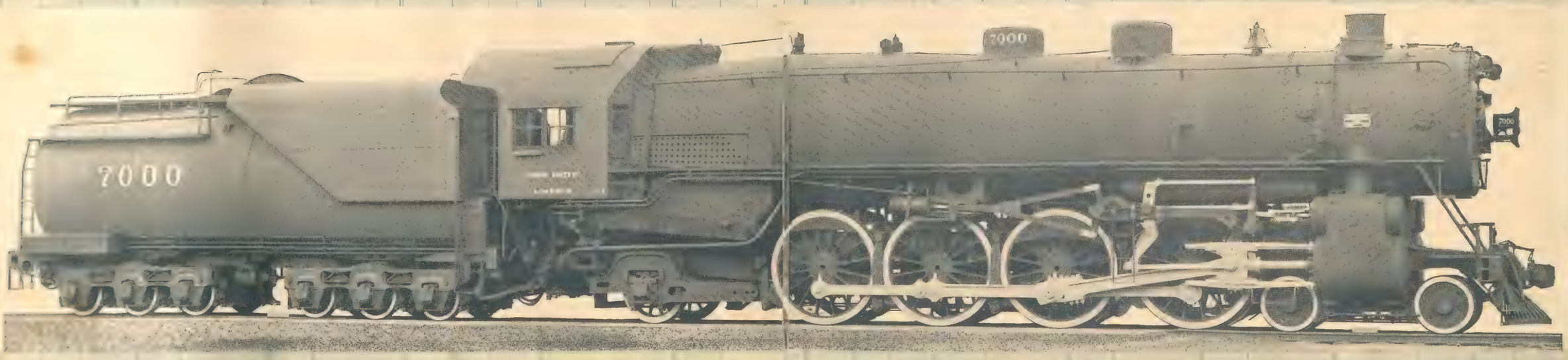
Service	Passenger
Cylinders, diameter and stroke	29 in. by 28 in.
Valve gear	Young
Valves, kind and size	Piston—14 in.
Maximum travel	9 in.
Outside lap	1⅜ in.
Exhaust clearance	⅞ in.
Lead in full gear	¼ in.
Cut-off in full gear	90 per cent
Weights in working order:	
On drivers	230,000 lb.
On front truck	59,000 lb.
On trailing truck	56,000 lb.
Total engine	345,000 lb.
Tender	237,800 lb.
Wheel base:	
Driving	19 ft. 6 in.
Rigid	12 ft. 8 in.
Total engine	41 ft. 3 in.
Total engine and tender	79 ft. 11½ in.
Wheels, diameter outside tires:	
Driving	73 in.
Front truck	33 in.
Trailing truck	45 in.
Journals, diameter and length:	
Driving, main	12 in. by 16 in.
Driving, others	10 in. by 12 in.
Front truck	6½ in. by 12 in.
Trailing truck	9 in. by 14 in.
Boiler:	
Type	Conical
Steam pressure	200 lb.
Fuel, kind	Semi bitum., 12,000 B.t.u.
Diameter, first ring, outside	84 in.
Firebox, length and width	126 in. by 96 in.
Height, grate to crown sheet, back	72 in.
Height, grate to crown sheet, front	84 in.
Arch tubes, number and diameter	4—3½ in.
Combustion chamber, length	56¼ in.
Tubes, number and diameter	239—2¼ in.
Flues, number and diameter	48—5½ in.
Tubes and flues, length	22 ft.
Grate area	84 sq. ft.
Heating surfaces:	
Firebox, incl. comb. chamber and arch tubes	382 sq. ft.
Tubes	3,084 sq. ft.
Flues	1,508 sq. ft.
Total evaporative	4,974 sq. ft.
Superheating	1,242 sq. ft.
Comb. evaporative and superheating	6,216 sq. ft.
Tender:	
Style	Cylindrical tank
Water capacity	12,000 gal.
Coal capacity	20 tons
Trucks	6-wheel
Truck wheels	33-in. steel
Truck journals	6 in. by 11 in.
General data, estimated:	
Rated tractive force, 85 per cent	54,838 lb.
Cylinder horsepower	3,030 hp.
Boiler horsepower	2,980 hp.
Speed at 1,000 ft. piston speed	46.5 m.p.h.
Steam required per hour	6,300 lb.
Boiler, evaporative capacity per hour	6,200 lb.
Coal required per hour, total	9,843 lb.
Coal, rate per sq. ft. grate per hour	117 lb.
Weight proportions:	
Weight on drivers ÷ tractive force	4.19 lb.
Weight on drivers ÷ total weight engine	66.7 per cent
Total weight engine ÷ cylinder horsepower	113.9 lb.
Total weight engine ÷ boiler horsepower	115.8 lb.
Boiler proportions:	
Boiler horsepower ÷ cylinder horsepower	98.5 per cent
Comb. heating surface ÷ cylinder horsepower	2.05
Tractive force ÷ comb. heating surface	8.82
Tractive force × dia. drivers ÷ comb. heating surface	644
Cylinder horsepower ÷ grate area	36.1
Firebox heating surface ÷ grate area	4.55
Firebox heating surface ÷ evap. heating surface	7.7 per cent
Superheating surface ÷ evap. heating surface	25.0 per cent

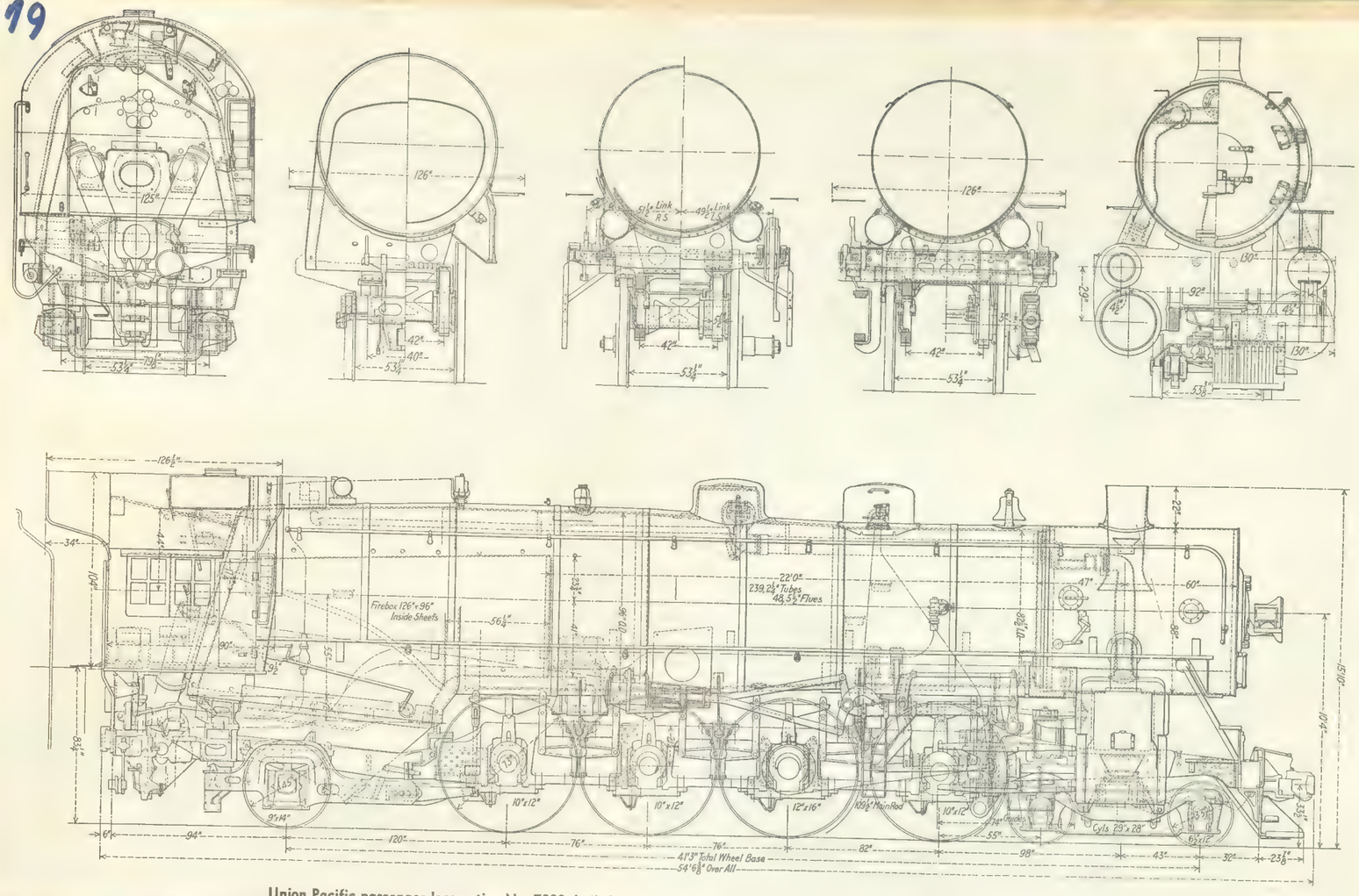
The Mountain Type - MT-73

7000	Schenectady 1922
7001-7039	Brooks 1922
7850-7859	Brooks 1923
7860-7864	Brooks 1923
7865-7869	Brooks 1924



This print issued by ALCO showing the 7000 on one of her initial trips, this time working 2nd 20 the Pacific Limited





Union Pacific passenger locomotive No. 7000, built by the American Locomotive Company, Schenectady Works, May 1922.

The Union Pacific's "City of Cheyenne" Streaks Through Adams, Colo., at 70 m.p.h.

SPORT MODELS was the term affixed by the designer of UP's 7000-series 4-8-2's to his long-boilered mountain racers. Neat-as-a-pin No. 7015 awaits the call in Cheyenne for train No. 25.

Cheyenne Frontier Days:

This famous annual celebration will be held at Cheyenne, Wyoming, July 27, 28, 29, 30, 1938

THE AIR HORNS ahead of her stack were not the only unusual feature of Mountain 7006 — which received Caprotti valve gear at Cheyenne in 1929. An 8000-mile test proved the Italian gear too light for heavy-duty American use and even a redesigned, heavier version could not take the gaff. Other American engines experimentally equipped with Caprotti gear included several of Delaware & Hudson, a Pennsy K5 Pacific, a Reading 4-6-0 and 2-10-2, and a Southern Pacific 2-10-2. Improvement of steam distribution on a wide scale had to await introduction of Franklin poppet valves after the failure of the foreign Caprotti gears.

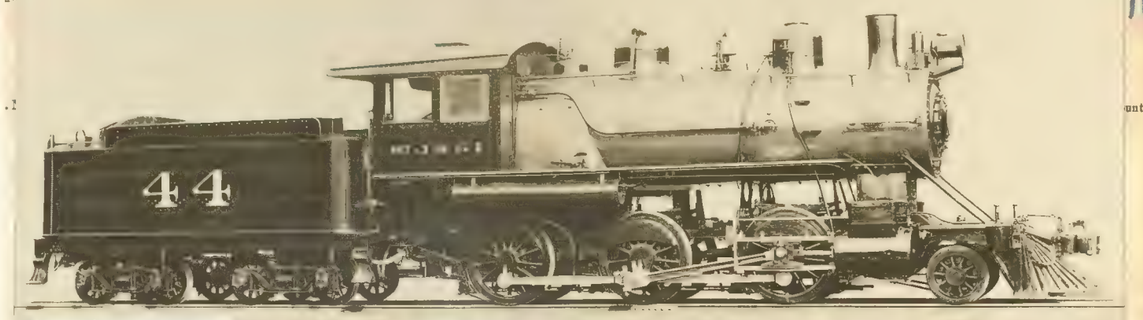
THEN, AS NOW, the great stone tower of Union Pacific's Cheyenne (Wyo.) station looked down on the varnish — in this case No. 19, the Pacific Limited (left), and No. 25, the Gold Coast Limited.

GUINEA PIG Mountain 7002 was rebuilt in 1937 as Union Pacific braced itself for the emphasis on speed ushered in by the depression and its own streamliner experiments. The 4-8-2, later streamlined for the *Forty Niner*, received lightweight rods and Timken roller bearings. Her power frequently bent or snapped light rods at high speed. Other items of note: aluminum numbers on steam dome, A.T.C. box under running board and over cylinder, stack extension smoke deflector, disc main drivers. Next step was the 4-8-4.

Fifteen engines, 711-725, built by Brooks in 1886

Union Pacific Eight-Wheeler 711 takes water at Sylvan Grove, Kansas in 1902

40-45 Baldwin 1904



c/n 23821

40-45 Baldwin 1904

1703-1742 Brooks 1899 c/n 3235
Renoed 1250

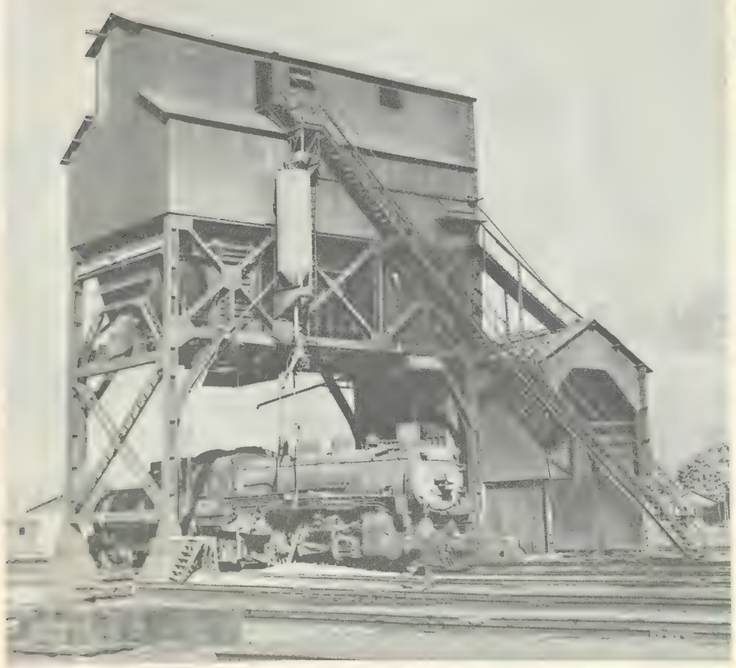
1600-1609
Cooke 1890

ENGINE 1607, U. P. RY., LARAMIE, WYO. OKM

"ON UNION PACIFIC SYSTEM"

AEROPLANE VIEW, BUSINESS SECTION, CHEYENNE, WYO.

Coal dock at Ogden



Richard H. Kindig

"In an unusual operation on March 29, 1953," states Richard H. Kindig, "four engines pulled a 68-car up freight from Otto to Sherman, Wyo. After 4-12-2 9010 and 4-6-6-4 3709 left Cheyenne, both engines began having troubles. They pulled into the siding at Otto to wait for assistance. The dispatcher ordered two eastbound helpers, returning to Cheyenne, to assist the partially disabled freight. Four different types wound up on the head end: 5516, 2-10-2; 5093, 4-10-2; 9010, 4-12-2 — and 3709, 4-6-6-4. There was no way to turn the two extra engines at Otto."

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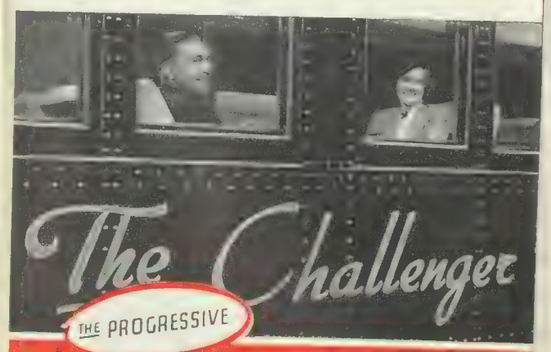
The San Francisco Challenger departing Omaha

FOR THE UTMOST IN
LOW-COST TRAVEL
★ ★ ★ COMFORT ★

The Challengers

LOS ANGELES ★ SAN FRANCISCO



THE PROGRESSIVE
UNION PACIFIC
RAILROAD

Sold | Amount | Clos. No.

★No. 87—SAN FRANCISCO CHALLENGER. Daily.
Condensed Table A.
Registered Nurse—Stewardess and Porter Service without charge. Ladies Lounge. Free pillows day or night. Free drinking cups. Cars from Chicago run via C. & N.W. to Omaha, thence U. P.

Lounge Car..Chicago to San Francisco (for sleeping car passengers only).
Challenger Sleeping Cars. (*Pullman Tourist.*) 1938
Chicago to San Francisco—16-Sections.
Chicago to Portland—16-Sections (17 west of Green River).
Kansas City to San Francisco—16-Sections (No. 23-37 to Green River).
Womens De Luxe Coaches..Chicago to San Francisco (Reclining Seats).
Reclining Seat Coaches...Chicago to San Francisco.
Chicago to Portland (No. 17 west of Gn. Riv.).
Dining Car.....Meal Service.
Complete meals: 25c. breakfast, 30c. lunch, 35c. dinner.

★Regularly Assigned Thro

UNION PACIFIC RAILROAD

The "CHALLENGERS", inaugurated in 1935, quickly became very popular for travel between Chicago and the West Coast. Often times running in sections. They became the best money makers of the U.P. passenger fleet.

San Francisco Challenger—Popular daily, "economy-comfort" train. Challenger sleeping-cars; deep-cushioned coaches; low cost, dining-car meals, breakfast 25c, luncheon 30c, dinner 35c. Lounge car for sleeping-car passengers. Registered Nurse-Stewardess service.

Los Angeles Challenger

An Example of Travel Economy

Chicago to Los Angeles or San Francisco, one way in coaches	$34.50
3 meals, 1st day	.90
3 meals, 2nd day	.90
Breakfast, 3rd day	.25
Total	$36.55

The Challengers • CHALLENGE
ALL OTHER FORMS OF TRANSPORTATION!

★No. 717—THE CHALLENGER. Daily. Condensed Tables A and H.
Registered Nurse—Stewardess and Porter Service without charge. Cars from Chicago run via C. & N.W. to Omaha, thence U. P.

Lounge Car.....Chicago to Los Angeles (for sleeping car passengers only).
Challenger Sleeping Cars..Chicago to Los Angeles—14-Sections.
(*Pullman Tourist.*) 1938
Minneapolis-St. Paul to Los Angeles—14-Sec.
Omaha to Los Angeles—14-Sec. (15 Omaha to Denver; 37 Denver to Salt Lake).
Womens De Luxe Coaches..Chicago to Los Angeles (Reclining Seats).
(*Women and children only.*) Omaha to Los Angeles (Reclining Seats).
Reclining Seat Coaches.....Chicago to Los Angeles. Omaha to Los Ang. Denver to Los Angeles (No. 37 to Salt Lake).
Dining Car .....Low Cost Meal Service.

★ Regularly Assigned Through Cars Air-Conditioned.

Clos. No. Sold Amount Clos. No. Sold Am Sold Amount

THE GOLD COAST

At night, when platform lights shine on a locomotive's flanks and the bulbs under its running boards illuminate the machinery that turns steam into motion, an engine becomes a giant of power, a mammoth steel beast of burden. Its hissing hulk and bespangled tail of cars wait patiently for their turn to race across the darkened hinterland. Here, in such a nocturnal atmosphere at Ogden, Utah, is the eastbound Gold Coast. This workhorse of the Overland Route comes from San Francisco over the Southern Pacific; UP handles it to Omaha, and Chicago & North Western takes it to Chicago.

Richard Steinheimer.

Robert A. Witbeck

Train 24, The Gold Coast *, over Sherman Hill eastbound in the 1950s.*

SPRUCED-UP Union Pacific 4-8-4 brings Extra 826 West — the Cal-Nevada-R&LHS railfan tour — through Dale Cut at 30 miles per hour June 6. The site is UP's new line over Sherman Hill, the sound is splendid.

R. H. Kindig

lst 23, the Gold Coast , ads out of Omaha

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One of the Fifteen 4-8-4 Type Passenger and Fast Freight Locomotives Built for the Union Pacific by the American Locomotive Company

U. P. Adds to High-Capacity Motive-Power Fleet

Alco-built combination fast-freight and passenger locomotives of 4-8-4 type involve a number of important changes from the preceding lot

FIFTEEN 4-8-4 type high-speed freight-passenger locomotives are now being delivered to the Union Pacific by the American Locomotive Company. The design is a further development of the twenty 4-8-4 type locomotives which were built by this same company for the Union Pacific in 1937. It was one of these locomotives that attained the highest speed in the A. A. R. tests, when it hauled a 16-car 1,000-ton train westbound to Grand Island with a maximum speed of 89 miles an hour, and eastbound on a slightly descending grade 102 miles an hour.

The new locomotives will operate in pool between Omaha, Neb.; Cheyenne, Wyo.; Denver, Colo.; Ogden, Utah, and Salt Lake City, and Huntington, Ore., the longest through runs being Omaha to Ogden, 990 miles; Omaha to Salt Lake City, 1,026 miles, and Omaha to Huntington, 1,394 miles. They will be used largely in conventional passenger-train service, handling the Challenger, Overland Limited, Los Angeles Limited, Portland Rose and Pacific Limited trains. The ruling grade westbound, in this territory is 1.55 per cent and eastbound 1.14 per cent. They are capable of operating continuously under maximum horsepower output at 90 miles an hour on the Union Pacific Lines. Calculations were based on 110 miles an hour design speed, with 100 miles an hour operating speed. The locomotives will negotiate curves of 20 deg.

A comparison of the principal dimensions of the two orders of locomotives is shown in the table. The cylinder diameter of the new locomotives has been increased from 24½ in. to 25 in. and the driving-wheel diameter from 77 in. to 80 in. The same boiler pressure, 300 lb., has been retained. The tractive force, 63,800 lb., is also practically the same.

The boiler is equipped with a Type E superheater. It has 184 flues 3¾ in. in diameter, and 50 tubes 2¼ in. in diameter, 19 ft. in length. This is 18 in. shorter than the tubes and flues in the boiler equipped with the Type A superheater on the original design. That length has been added to the combustion chamber which is now 90 in. long as compared with 72 in. on the earlier locomotives. The firebox is the same width and length. The firebox tube sheet is welded to the combustion chamber and firebox crown sheet, and the firebox door sheet is welded. The back corners of the mudring retain the large radius. The boiler is supported on the Commonwealth bed casting by a sliding shoe, immersed in oil, which takes the place of the conventional waist sheet, and is located at the center of the boiler. In order to give added stiffness, the smokebox liner is extended upward to the center line of the boiler.

The fireboxes are fitted with Firebar grates. There is a Sellers exhaust steam injector on the left side of the locomotive and a Nathan non-lifting injector on the right side. The stoker is the Standard type BK. Wilson blow-off cocks and sludge removers are used.

The smokestack is 26½ in. in diameter at the choke and has a continuous taper from the choke to the top of the stack. The exhaust pipe is the railroad's standard

Union Pacific 14-Wheel Locomotive Tender, Equipped With Commonwealth Cast-Steel Tender Bed Having Integral Pedestals for the Five Rear Pairs of Wheels

800-819 c/n 68814 Schenectady 1937

820-834 c/n 69166 Schenectady 1939

835-844 c/n 72791 Schenectady 1944

Unofficial records show that on at least one occasion 800's far surpassed the 100 mph mark. In 1946 the 80 roared across the Nebraska Division at 105-112 mph wi twenty-five heavyweight Pullmans. In the Nevada deser another 800 hit 112 plus before being bridled! In bot instances, the throttle was not open wide. Officials d not officially concede the fact that a Northern hit 1 mph on the Nebraska Division in 1946 also, but mo operating men have heard the tale and swear to its tru

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↓Union Pacific's City of St. Louis has come across Missouri on Wabash rails, has paused at Kansas City, then has highballed across the high plains to Denver. Here, with 4-8-4 No. 800 (in 1947) it leaves the mile-high city for Cheyenne.

Rail Photo Service

North Platte, Neb., is a subdivision point on the Nebraska Division. The San Francisco Overland is leaving North Platte, westbound.

Route of the
San Francisco Overland Limited

San Francisco Overland Limited—One of America's outstanding transcontinental trains. Barber, bath, valet service. Registered Nurse-Stewardess. In daily service. No extra fare.

Air-Conditioned
Comfort—
Fast Time—
Good Food—

. . . three essentials of enjoyable travel available on Union Pacific trains.

Northern 822 with the "San Francisco Overland" near Morgan, Utah

PRE-ELEPHANT EARS

EVER remember an 800 dressed up like this? Not unless you were one of the fortunate few who witnessed No. 815 for the brief test period in 1940 when she wore this Southern Pacific-like skyline casing while Omaha was searching for a way to keep the smoke out of the hogger's face. Experiment proved a failure and road eventually solved problem to its satisfaction by equipping all 45 of its famous Northerns plus many 4-6-6-4's with elephant-ear or "wing" deflectors.

Union Pacific #21, the Pacific Limited, with Engine 829, latest U.P. 4-8-4 Type, at Archer, Wyoming on the Fourth Subdivision of the Nebraska Division. Photo by Preston George.

UNION PACIFIC'S ENGINE 821 WITH HEAVY FREIGHT DRAG

Arthur Stensvad

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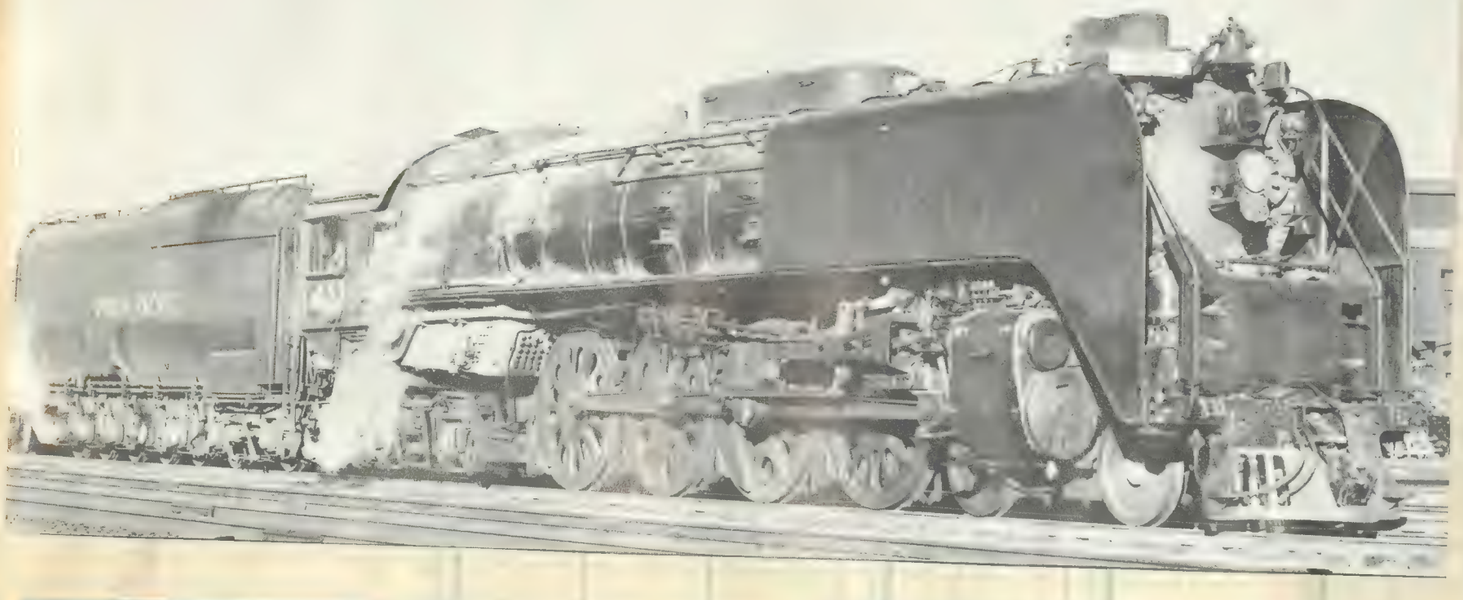


Union Pacific's *Los Angeles Challenger* speeds Eastward.

This photograph of second 818 was taken last December near Archer, Wyo. Engine 820 is a 4-8-4 and its tender is equipped with the new bed taking five axles. Some men call this type of tender "caterpillar."

R. H. Kindig, 3831 Perry St., Denver, Colo

Class No. | Sold

R. H. Kindig

UNION PACIFIC'S ENGINE 821 LEAVING CHEYENNE, WYO., WITH THE "SAN FRANCISCO OVERLAND LIMITED"

READY TO ATTACK SHERMAN HILL. Union Pacific's No. 5, the California fast mail, westbound, leaving Cheyenne, Wyoming. The helper is Engine 809, one of the original U.P. 4-8-4s with 77-inch wheels, and the road engine is 823, latest 4-8-4 built for the road with 80-inch drivers and 23,000-gallon tank.

Photo by R. H. Kindig.

The coal dock at Rawlings, Wyo.

What a grand occasion! The diesel has conked out and dependable 839 has rescued #2!!!

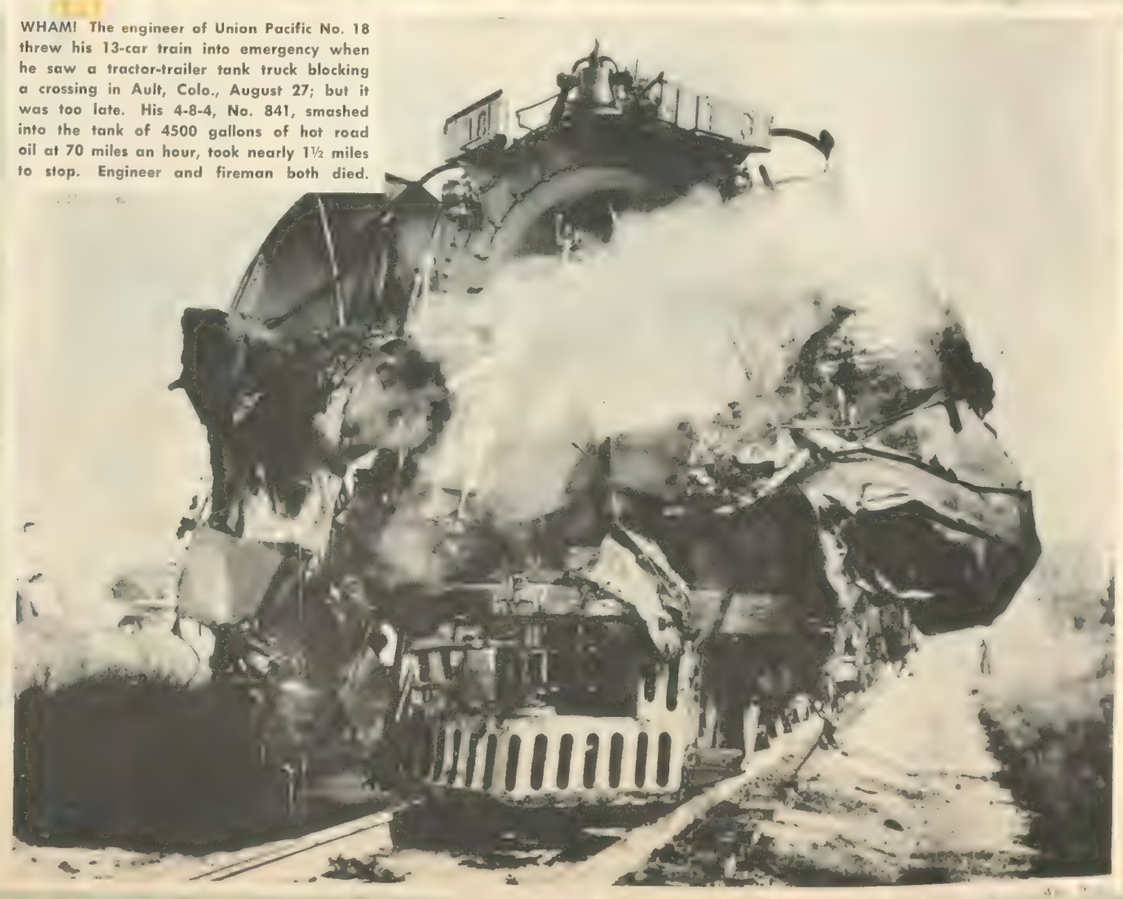
★ NO. 2—*The Streamliner.* CITY OF PORTLAND

Leave Portland 1st, 7th, 13th, 19th and 25th of each month. Arrive Chicago via C. & N. W. Ry.

Valet service is available.

Diner-Lounge (Radio)	Meal service.
Standard Sleeping Cars	Portland to Chicago—11 Enclosed Sections. Portland to Chicago—11 Open Sections (2 cars).
Coach	Portland to Chicago (48 reclining seats).
Coach-Buffet	Portland to Chicago (38 reclining seats). Buffet meal service to coach passengers at reasonable prices.

WHAM! The engineer of Union Pacific No. 18 threw his 13-car train into emergency when he saw a tractor-trailer tank truck blocking a crossing in Ault, Colo., August 27; but it was too late. His 4-8-4, No. 841, smashed into the tank of 4500 gallons of hot road oil at 70 miles an hour, took nearly 1½ miles to stop. Engineer and fireman both died.



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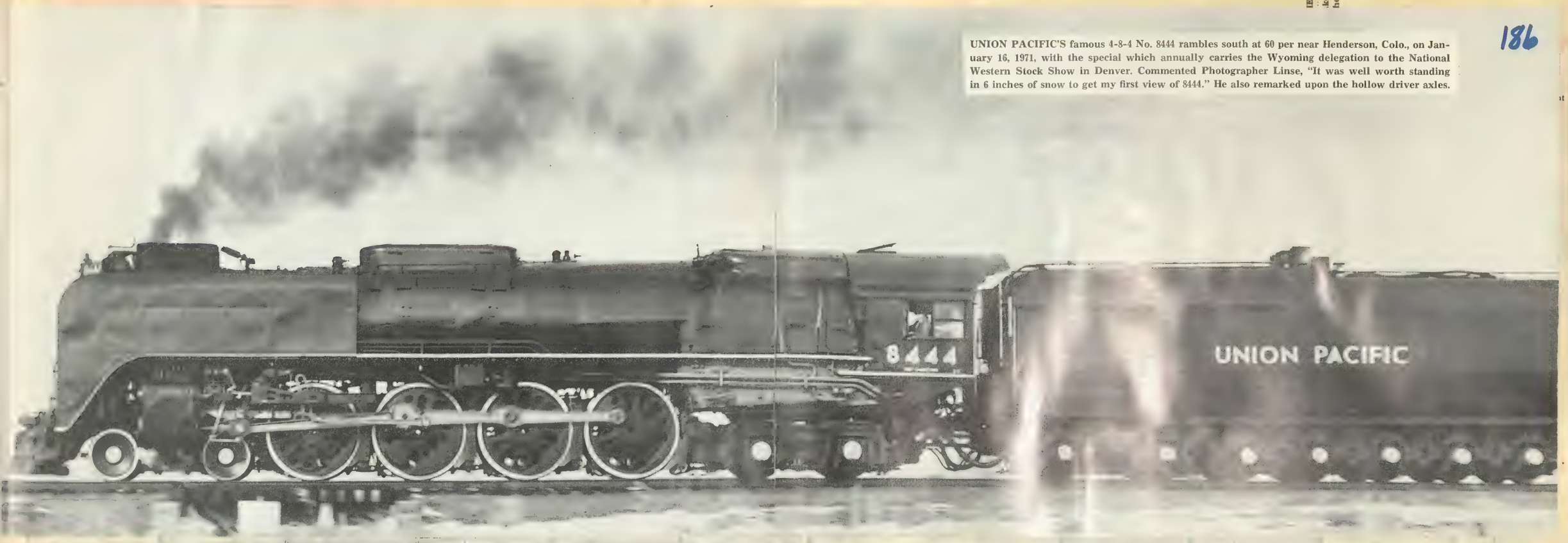


UNION PACIFIC'S famous 4-8-4 No. 8444 rambles south at 60 per near Henderson, Colo., on January 16, 1971, with the special which annually carries the Wyoming delegation to the National Western Stock Show in Denver. Commented Photographer Linse, "It was well worth standing in 6 inches of snow to get my first view of 8444." He also remarked upon the hollow driver axles.

SANDING THE FLUES creates a show of black smoke for the photographer at a cut near the Colorado-Wyoming state line.
Victor Hand.

9.7.69

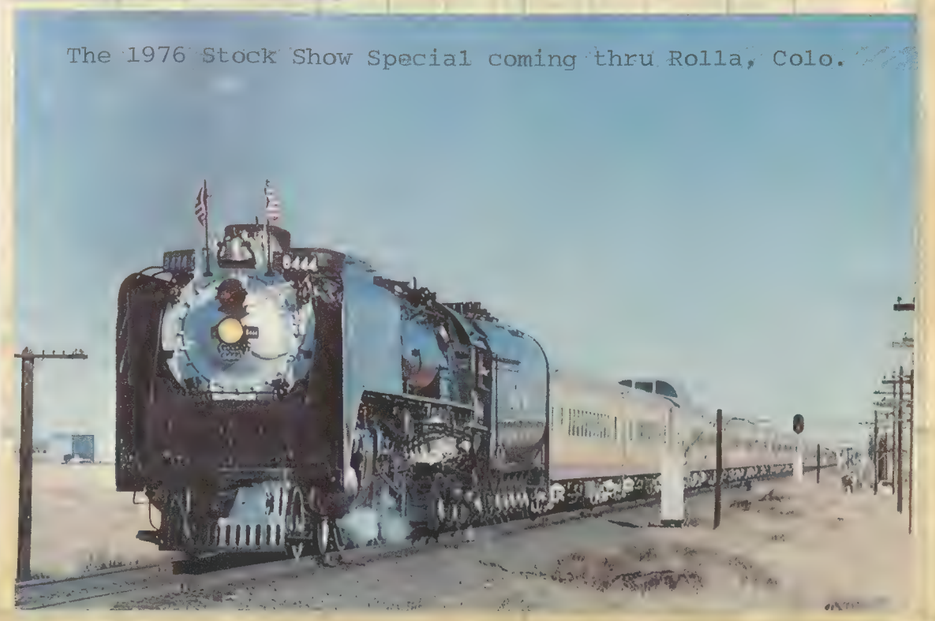
Gordon Glattenberg.

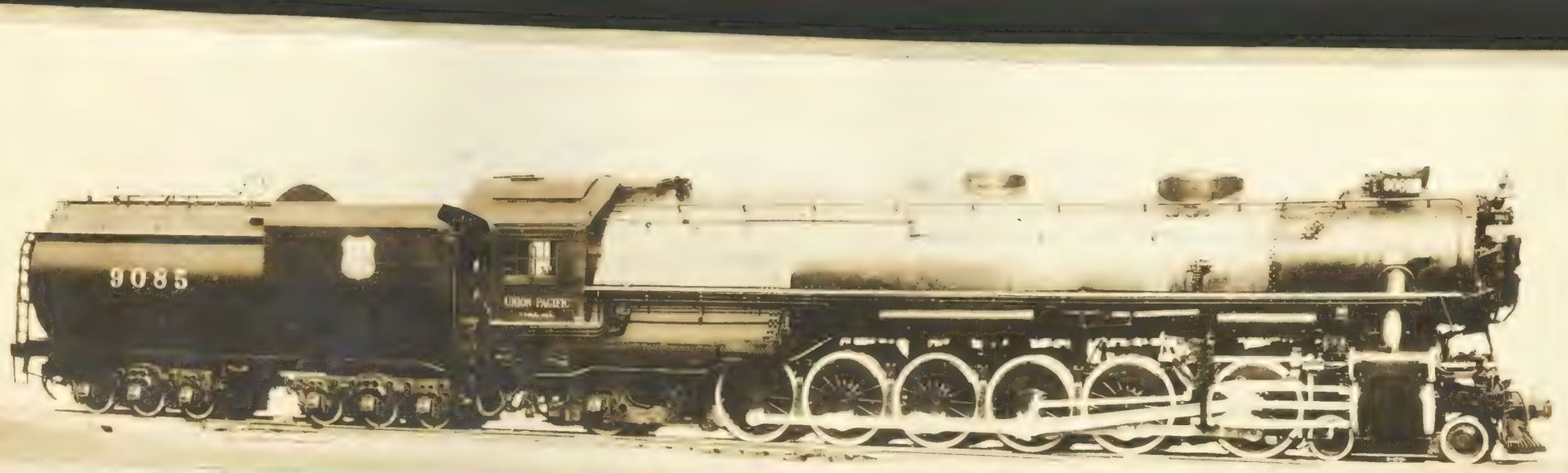
"GOOD OLD DAYS" are relived at Green River, Wyo., as Golden West Railfans special pulls in behind Union Pacific 4-8-4 No. 844 on May 29. Northern took train from Cheyenne to Ogden on one leg of group's three-day trip, returned east as helper.

UNION PACIFIC 4-8-4 8444 made a rare public appearance out of Omaha on June 18, 1983, hauling a public excursion to Columbus, Nebr., and return for the convention hosted by Mid-Continent Region of National Model Railroad Association. Train loaded within sight of UP's Missouri River bridge.

UNION PACIFIC 4-8-4 No. 8444 cruises through Platteville, Colo., on a sunny winter morning in January 1968 with a special train from Cheyenne, Wyo., en route to the National Western Stock Show at Denver. Speed of the 1944 Alco was estimated at 70 mph.

On a 1980 RMRC excursion, 8444 pulls into LaSalle, Colorado, on the Dent branch.





A The three cylindered Overla
(4-12-2) were only employed
the U.P. Wanting an engine
ample horsepower that could
move tonnage at Passenger
speeds, the 4-12-2 design
result of plans of A.H. Fe
CME of the U.P. and engine
at Alco. 88 engines were
as follows:-

9000	Brooks	3/26	=665
9001-9014	Brooks	9/26	=670
9015-9029	Brooks	8/27	=675
9700-9707*	Brooks	8/27	=675
9030-9054	Schen	9/29	=679
9063-9087	Schen	7/30	=684

*for OWRR&N, renoed 9055-90

PROTOTYPE 4-12-2 No. 9000 (Alco-Schen... ...was at Espee's Los Angeles roundhouse on May 6, 1956.

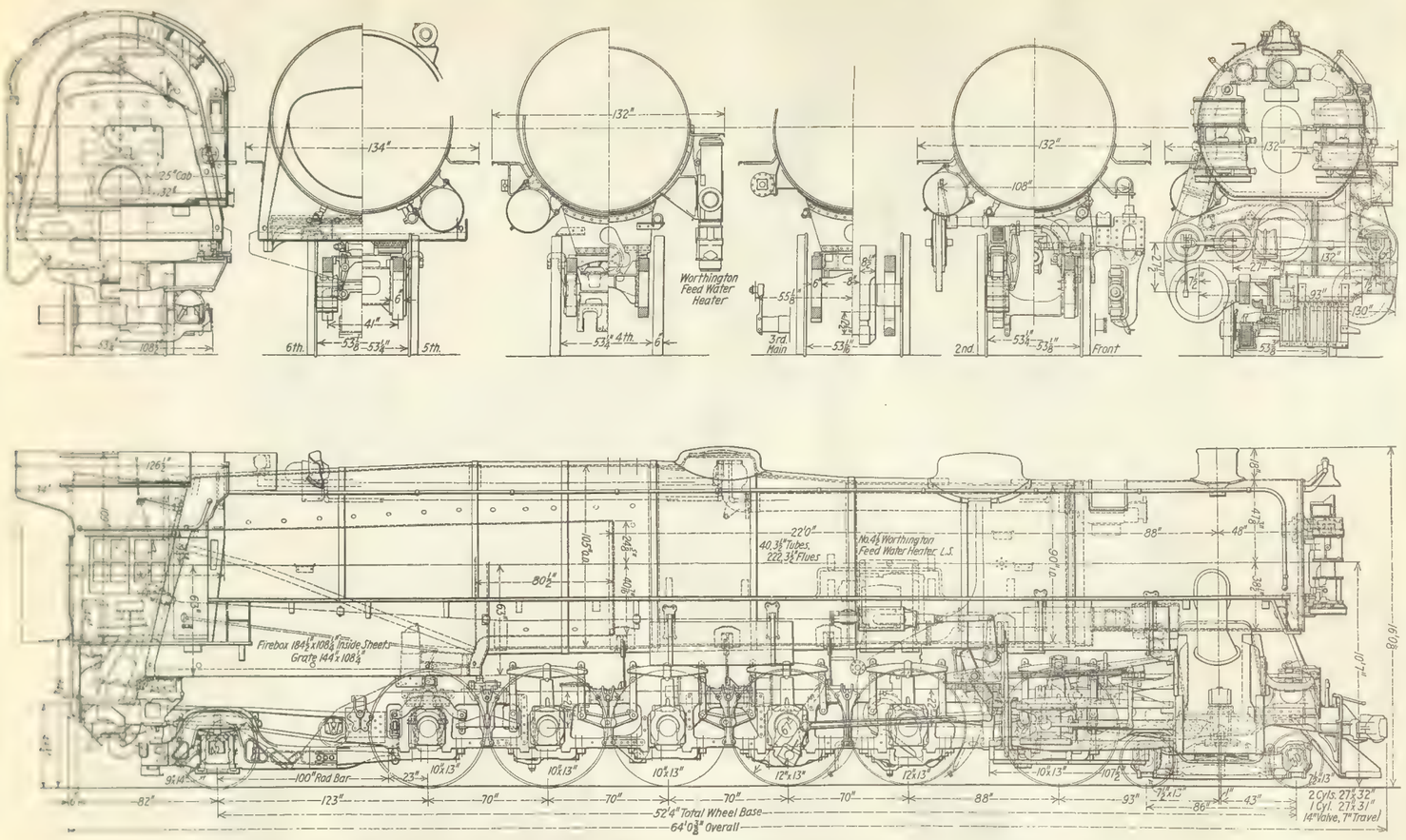
The end of the road

IN MAY 1956 Union Pacific donated engine No. 9000, the first of its three-cylinder 4-12-2's, to the Southern California Chapter of the Railway & Locomotive Historical Society. The engine went from Ogden to Los Angeles under steam towing several gondolas loaded with coal because she was a coal burner running over a division on which there were no coaling facilities. Thus did the first coal burner to run in Southern California in many years arrive at the UP terminal in East Los Angeles; then 9000 ran light from there about 5 miles to Southern Pacific's ...here she was set out on what was called ...'s Track" to die a slow death. Within an ...e, but I was disappointed to find the tender ...ns and steam pipes. Since 125 pounds of ...ing on the gauge, I asked the hostler if ...gine forward a bit. He replied, "You know ... yourself." So with the hostler standing ...o. 9000 forward until she was in the clear. ...nd the next day the engine was hauled ...her to the county fairgrounds at Pomona. ... last time I ran a locomotive on its final ...—a grand distance of 50 feet. I

The Union Pacific's own Type 4-12-2 engine 9030 with a westward extra east of LaSalle, Colorado on the Northern Subdivision of the Colorado Division. Photo by H. W. Pontin Railroad Photographs.

near Denver
March 10, 1956

UNION PACIFIC EXTRA HEADS INTO NORTH PLATTE "K" YARDS



Union Pacific three-cylinder freight locomotive No. 9000, built by the American Locomotive Company, Brooks Works, in March 1926.

Photo by R. H. Kindig.

UNION PACIFIC'S OWN TYPE EXTRA 9011, hauled by a 4-12-2, leaving Denver for Laramie, Wyoming.

9030-9054 c/n 67968 Schen 1929

189

THE OVERLAND—AN EMPIRE UP FOR GRABS

Passage of time has mellowed and made more acceptable the picture of fraud and corruption that characterized the building of the Union Pacific and Central Pacific—the "Overland"—and some historians tend to sweep the dirt under the rug by noting "that's how things were done in those days."

But the fact is that widespread manipulation of subsidies, watering of stock, falsifying of records and outright graft and bribery are a black page in the history of railroad construction.

Because some of the manipulators maintained or achieved respectability through civic actions is no reason why they should be applauded for raiding the public till.

Congressional investigations have unveiled the tactics of the Union Pacific schemers and although no detailed analysis of the Central Pacific's now-vanished records has ever been made public, enough is known to reconstruct what happened.

Vice President Thomas C. Durant was one of the chief financial maneuverers for the Union Pacific, along with the Ames Brothers—Oliver and Oakes. On the Central Pacific side, the "Big Four"—Leland Stanford, Collis Huntington, Mark Hopkins and Charles Crocker—grew from a comfortably well-off status to very rich.

Favorite tactics of these, and other railroad builders, was to generate big profits through the organization of contracting companies. Once funds were received for the building of track, a separate firm would be formed by the inside circle to contract for the construction and supplies at inflated prices. Thus the railroad officials, as directors of the project, would enter into contracts with themselves to build the road and divide the fat profits among themselves.

Union Pacific insiders utilized this technique largely through the infamous Credit Mobilier whose unmasking touched even members of Congress. The Central Pacific's leaders worked through Charles Crocker & Co. and the Contract and Finance Co. to harvest huge private fortunes.

An example of the Credit Mobilier operation can be seen in Union Pacific costs. The first 247 miles of track brought a profit to Credit Mobilier of more than $5,000,000. This seemed hardly worthwhile, so a new contract was drawn up with Oakes Ames, brother of Union Pacific President Oliver Ames. The new terms resulted in a profit of nearly $30,000,000 for the next 667 miles of track.

Oakes Ames was a congressman from Massachusetts and a powerful member of the House Committee on Pacific Railroads. To grease the wheels a bit, Ames gave or sold at heavy discount shares of Credit Mobilier to influential congressmen and senators.

The value of such shares can be readily assessed when it is pointed out that in the 13 months after November, 1867, six dividends were declared: dividends of 90% in cash, 155% in first-mortgage bonds, and 300% in stock—for a total of more than $20,000,000. Then the last 125 miles of the Union Pacific construction brought a profit of more than $7,000,000 to the Mobilier plunderers.

No one has succeeded in identifying all members of the Credit Mobilier ring, which finally collapsed when factions began fighting among themselves and Cong. Ames was officially censured by the Congress.

When Credit Mobilier was organized, Union Pacific Vice President Durant was elected president and soon some of the Pacific ring (which had pushed for a Pacific railroad) began to lose public interest in the venture. It is widely assumed that they shared in Credit Mobilier profits through dummy corporations and various fronts.

On the Central Pacific side, there was no Credit Mobilier type of scandal, but contracts through the Contract and Finance Co. resulted in estimated profits of about 500% to 600% on an investment of about a million dollars over a six-year period.

Major causes of financial railroad maneuvering were the huge sums of money eventually available from a trusting public—mostly abroad—and the gigantic land subsidies given to promoters. It is estimated that more than a billion dollars was invested in railroad construction from 1862 to 1872.

The land-grant period lasted from 1850, when the Illinois Central was the first to get such a grant, until 1871, when the last grant went to the Texas & Pacific. In two decades, western roads received more than 150 million acres of public lands as gifts.

Some of the railroad promoters in the period following completion of the Central Pacific and Union Pacific refined the unethical tactics which had resulted in huge profits during construction and expanded them into general business practices.

Owners of larger roads controlled smaller roads which they leased back to the larger roads at exorbitant rentals. Directors owned companies which made repairs and manufactured equipment; they built and owned bridges, operated ferries and sold themselves fuel and supplies. Stocks were issued freely and often given away for favors.

Top photo shows Ulysses S. Grant (leaning on fence in front of bird cage) and War Department officials gathered at Fort Sanders to settle differences between Union Pacific Vice President T. C. Durant, sixth from right, and Chief Engineer Grenville M. Dodge, far left. Grant had just been nominated for the presidency. In bottom photo, four Union Pacific leaders sit around table in Durant's private car. From left are Silas Seymour, Sidney Dillon, Durant and John Duff.

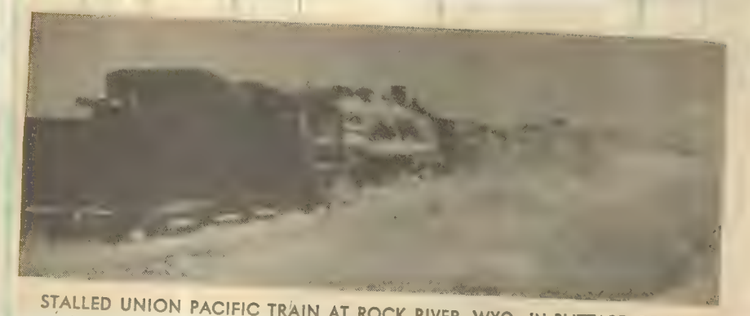
Union Pacific was slightly premature in this poster in 1868, showing Far East and America shaking hands. The transcontinental link was expected to bring a sharp boost in trade with the Far East, but the Suez canal soon opened and the American rail link was not utilized to any great extent.

Potential investors in Union Pacific securities were often taken on special excursions to the "end of the line" to see for themselves the progress being made.

UNION PACIFIC ENGINE 850 AT COUNCIL BLUFFS ROUND HOUSE IN 1910

Photo by "Sparky," Roseville, Cal.

The Union Pacific Has a New Ticket Office at Powell and Geary Streets, San Francisco, Cal.



STALLED UNION PACIFIC TRAIN AT ROCK RIVER, WYO., IN BLIZZARD OF 1917

UNION PACIFIC'S ENGINE 2734 IN WEBER CANYON HEADED FOR PARK CITY, UTAH.

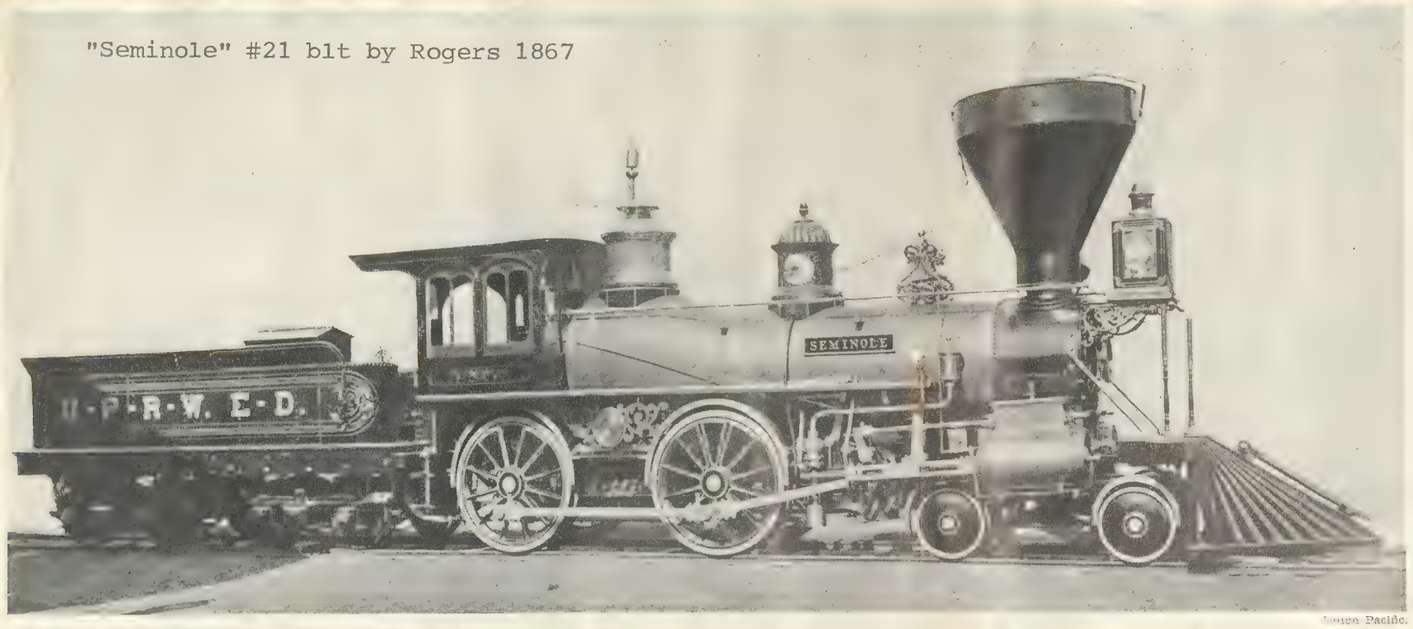
Not all DC-3's have wings, as this photo of Union Pacific detector car of that designation is evidence. This good-looking car is well-painted and maintained in the manner which characterizes UP equipment. UP was a pioneer operator of self-propelled rail cars, the largest user of McKeen equipment, named for the road's master mechanic who designed them. Photo was taken at Laramie on September 1, 1963.

Cash to next Seller

Next Seller's Signature

Total Accounted for

"Seminole" #21 b1t by Rogers 1867

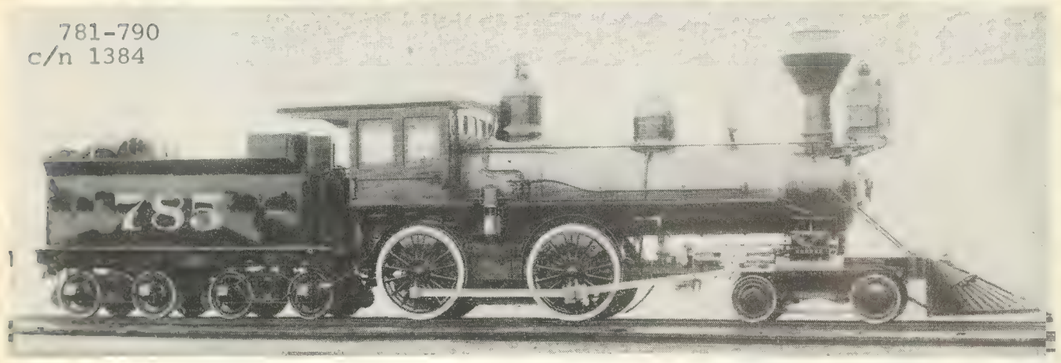


Union Pacific.

A Rogers loco on the Kansas Pacific.

Only a few years after the construction of the original Union Pacific, the Union Pacific - Eastern Division, or Kansas Pacific, was being built west from Kansas City to Denver by a separate company. This was completed in 1870 and is now the Kansas City trunk of the Union Pacific. Gen. William J. Palmer of Denver & Rio Grande fame surveyed and engineered the road, and was primarily responsible for the financing and construction. This line furnished the first all-rail connection from the East into the trans-Missouri country. It had connections via St. Louis before the Chicago & North Western reached Council Bluffs in 1867 to connect with the Union Pacific. The Denver Pacific connected Denver with the UP line at Cheyenne in 1870 and this completed an optional transcontinental route through St. Louis, Kansas City and Denver. Buffalo Bill Cody worked for the Kansas Pacific and had the contract to supply meat for the construction crews. He got his nickname because he was so proficient at shooting buffalo, and in fact he killed 4280 buffalo in 18 months in the course of furnishing buffalo steaks for the railroad builders. In connection with the Kansas Pacific surveys Gen. Palmer also made the reconnaisance surveys of the more southerly routes now followed by the Santa Fe and the Southern Pacific, and became so enthusiastic about the potentialities of the Rocky Mountain country that he determined to build a north and south railroad along the east slope to feed the various transcontinental routes.

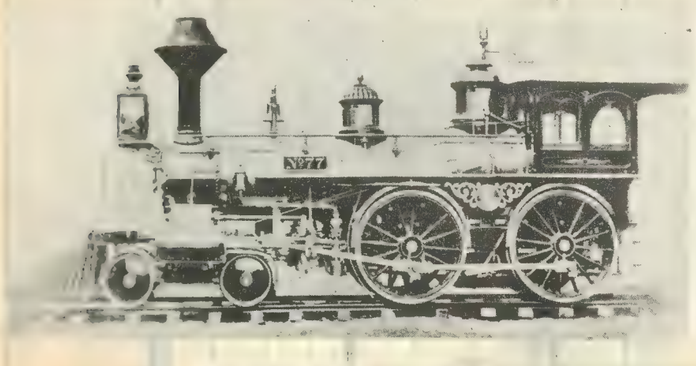
781-790
c/n 1384



Union Pacific passenger locomotive No. 785, built by Brooks Locomotive Works, May 1888. Cylinders 18 in. x 26 in. Drivers 62 in. Driving wheel base 8 ft. 10 in. Engine wheel base 24 ft. 9 in. Engine and tender wheel base 46 ft. 1¾ in.

201-202
renoed 1005

Union Pacific 202 was built by Danforth & Cooke in 1880. She had no engine brakes, but tank brake wheel and rigging are visible here.

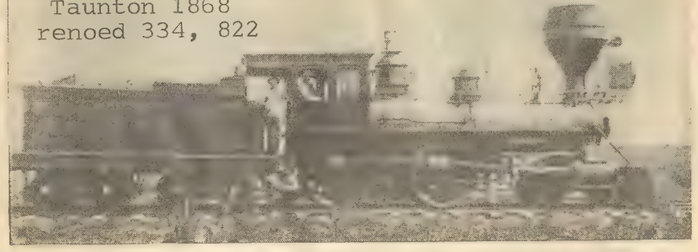


20 engines used.

Twenty locomotives were used in the Jarrett & Palmer transcontinental run. Two engine runs were outstanding, that of Pennsylvania Railroad No. 573, which pulled the train nonstop from Jersey City to Pittsburgh, and Central Pacific No. 149 (shown at far left with its crews), which pulled the train from Ogden to Oakland, 879.2 miles. No. 77, left, was one of 8 on the Union Pacific.

73-77
Rogers 1868

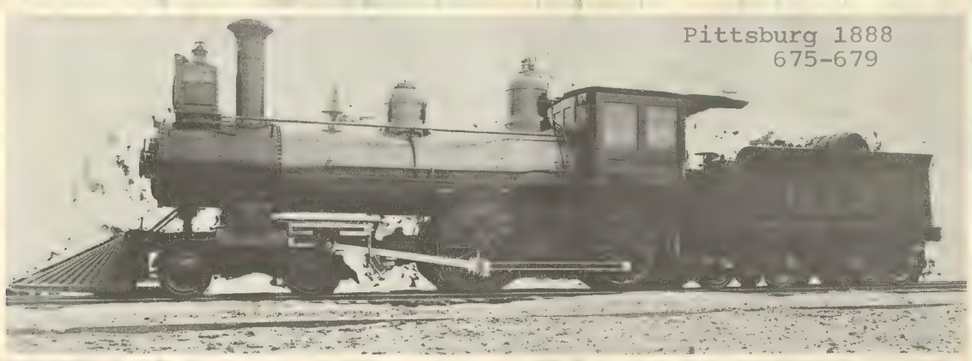
Taunton 1868
renoed 334, 822



UNION PACIFIC ENGINE 130 RUNNING OUT OF OMAHA IN 1884

This "Taunton" engine weighed about 35 tons, had 16 x 24 in. cylinders and 4½ ft. drivers. The peculiar smokestack was known as a "Congdon" and was fitted with a spark arrester, reports Brother Harry A. Riley, Div. 183, who often operated this engine at the rate of a mile a minute back in the "gay nineties."

Pittsburg 1888
675-679



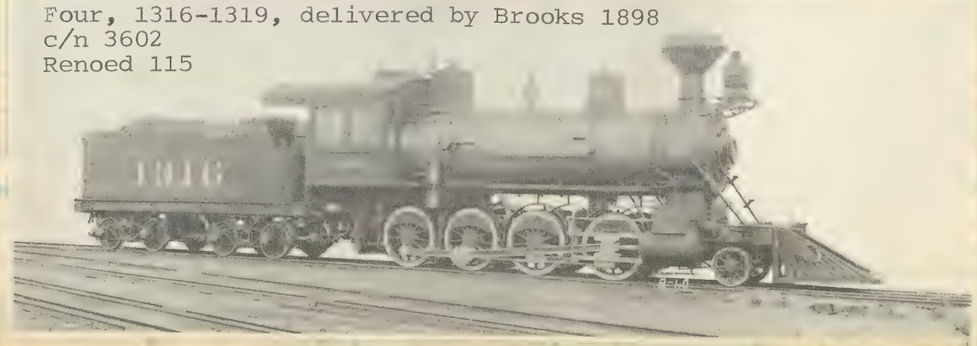
MADE IN OMAHA

Built by Rogers 1887
with wide firebox and
double cab, noed 767

TRIM American No. 836 was homemade, a product of Union Pacific's Omaha Shops. Turned out in 1892, the 4-4-0 proudly displays her ancestry in a shield-type data plate on the flank of her smokebox, also carries the words UNION PACIFIC on her steam chests. Union Pacific is seldom associated with locomotive construction. Indeed, despite data plate, engines such as No. 836 were to a degree rebuilds of existing power on line.

maha 1892

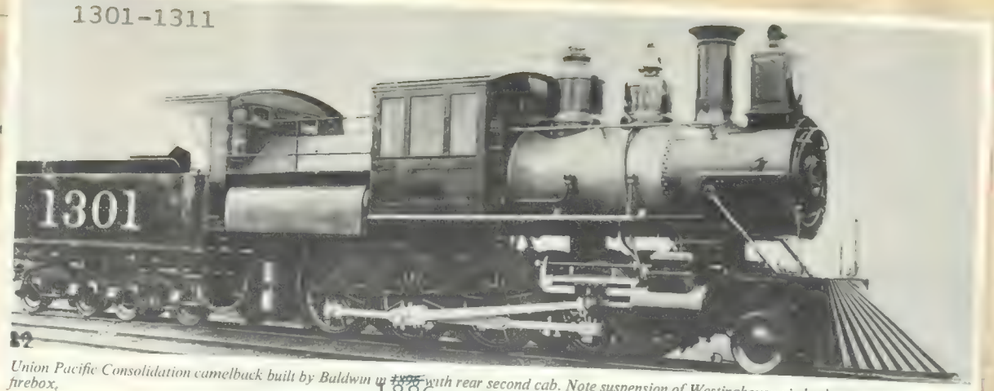
Four, 1316-1319, delivered by Brooks 1898
c/n 3602
Renoed 115



759 built by Grant 1887
c/n 1711, later OSL 323
then U P 1007.

UTAH & NORTHERN Engine 759, taken at Dry Creek (now Dubois) Idaho, in 1888, shortly after the road had been widened to standard gauge. Built by Grant in ~~1876~~, the 4-4-0 had 18 x 16 inch cylinders, 63 inch drivers, and carried 150 pounds boiler pressure.
(Henry R. Griffiths collection, courtesy of Arthur Petersen)

1301-1311



Union Pacific Consolidation camelback built by Baldwin in ~~1875~~ with rear second cab. Note suspension of Westinghouse air-brake pump below Wootten firebox.
(Photo: H. K. Vollrath and Michael Koch collections)

1886

1620-1621
Vanderbilt boilers
Cmpd Rebl 1903

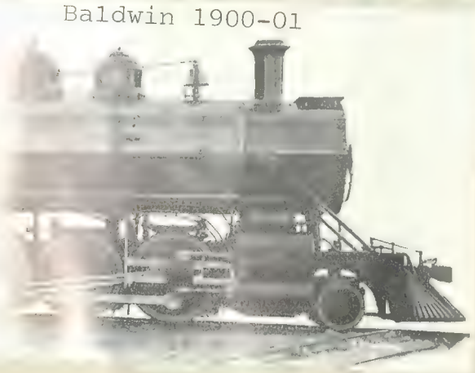
Baldwin
1900

c/n 17931

One of the compound 2-8-0's, the 1624, struggles to move tonnage on the main line near Rawlins

1620-1699 renoed 400-479
c/n 17892

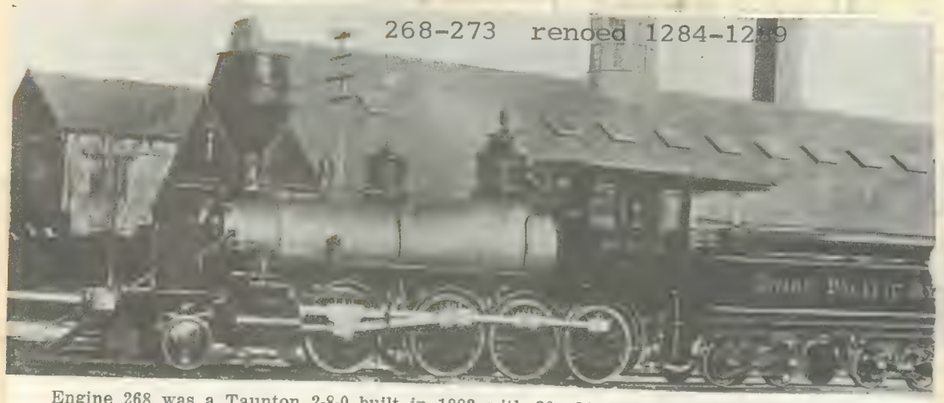
Baldwin 1900-01



1820-1829 renoed 1320
Vauclain Compound
c/n 18326

Baldwin 1900

268-273 renoed 1284-1289



Engine 268 was a Taunton 2-8-0 built in 1883 with 20 x 24 inch cylinders and 50 inch drivers. She is shown here minus her headlight at the Taunton factory prior to delivery.

Engine 235 was a 4-6-0 built by Taunton in 1881 with 18 x 24 inch cylinders and 56 inch drivers. She went to the Oregon Short Line around 1883.
(All photos courtesy of Union Pacific Railroad)

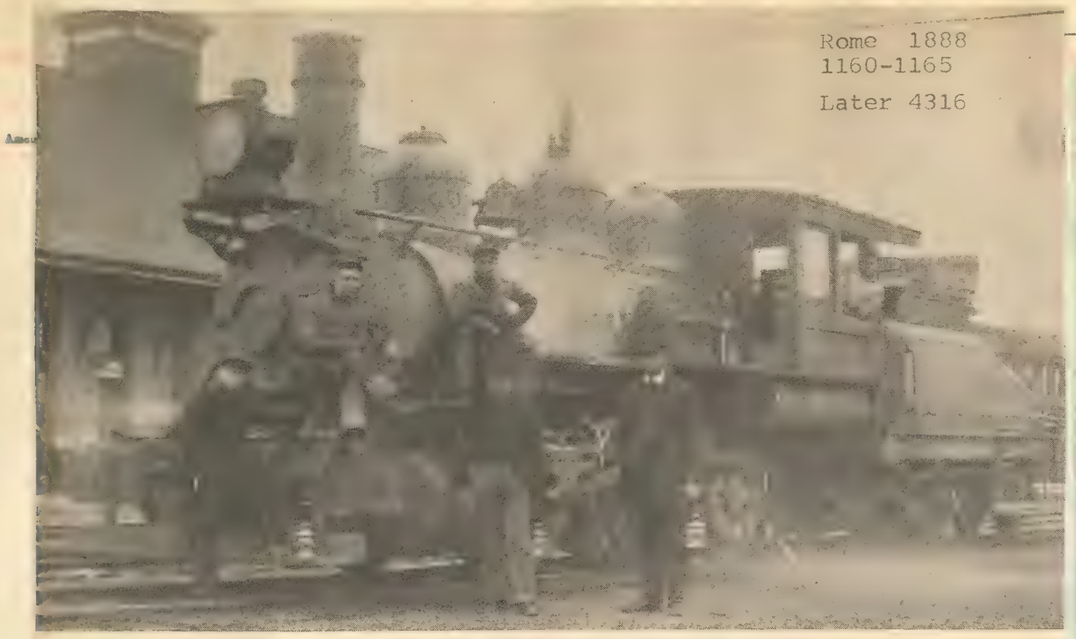
234-257
c/n 776

The 1807 at Green River. In 1890 Rome (N.Y.Loco Works) delivered Ten wheelers noed 1800-1819 with three different driver sizes. Nos 1800-05, 1807-10, 1812-18 had 69" wheels, the 1806 with 57" and 1811, 1819, had 62". Were renoed 1300-1319.

Clos. No. Sold Amount

Clos. No. Sold Amount

Rome 1888
1160-1165
Later 4316



UNION PACIFIC ENGINE AND CREW IN 1908

Photograph taken at Sidney, Neb., and lent to the JOURNAL by Brother G. H. Parks. The crew: Brother Bill Vosiepha, engineer at right; Brother G. H. Parks, fireman, on running board, now employed by Chicago, Northwestern; Ed. Putoff, yardmaster; Bob Dyk and Sam Boggs, switchmen; Brother R. H. Zimmer, (now deceased) engineer, sitting in cab.

1211-1230 Blt 1906
c/n 27481
renoed 4360

Fig. 13—Six-Wheel (0-6-0) Locomotive for Switching Service. Built for the Union Pacific by the Baldwin Locomotive Works. Cylinders, 19 in. x 26 in. Working Steam Pressure, 175 lbs. per sq. in. Diameter of Drivers, 51 in. Tractive Effort, 27,475 lbs. Heating Surface—Tubes, 1,416.7 sq. ft.; Firebox, 146.3 sq. ft.; Total, 1,563 sq. ft. Grate Area, 30.2 sq. ft. Rigid Wheel Base, 11 ft. Total Weight of Engine, 142,800 lbs. Fuel, Soft Coal.

4421-4450

Fig. 28—Six-Wheel (0-6-0) Locomotive for Switching Service. Built for Union Pacific by the Baldwin Locomotive Works. 1916

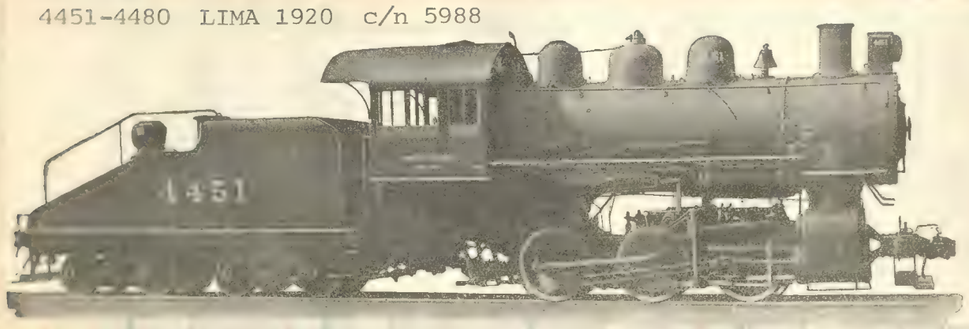
Gage	4 ft. 8½ in.	Heating Surface, Tubes	1,478 sq. ft.
Cylinders	21 in. x 26 in.	Heating Surface, Firebox	140 sq. ft.
Steam Pressure	180 lbs.	Heating Surface, Total	1,618 sq. ft.
Diam. of Drivers	51 in.	Heating Surface, Superheater	362 sq. ft.
Tractive Effort	34,400 lbs.	Grate Area	39.7 sq. ft.
Rigid Wheel Base	11 ft.	Weight on Drivers	156,300 lbs.
Total Wheel Base	11 ft.	Fuel	Soft coal

old to Laramie Valley in 1949
returned 1970, to C.R.M. 1972

Working at Denver Union Sta
March 1938

4421-4450 Baldwin 1916

4451-4480 LIMA 1920 c/n 5988

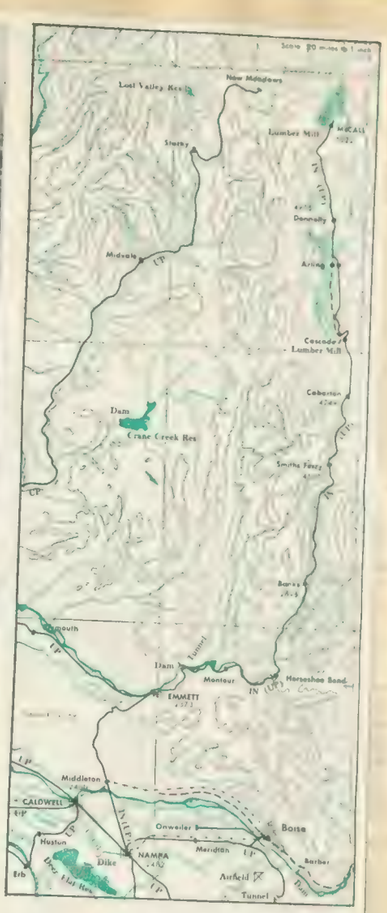


Baldwin 1907 to OSL #325, UP 1008

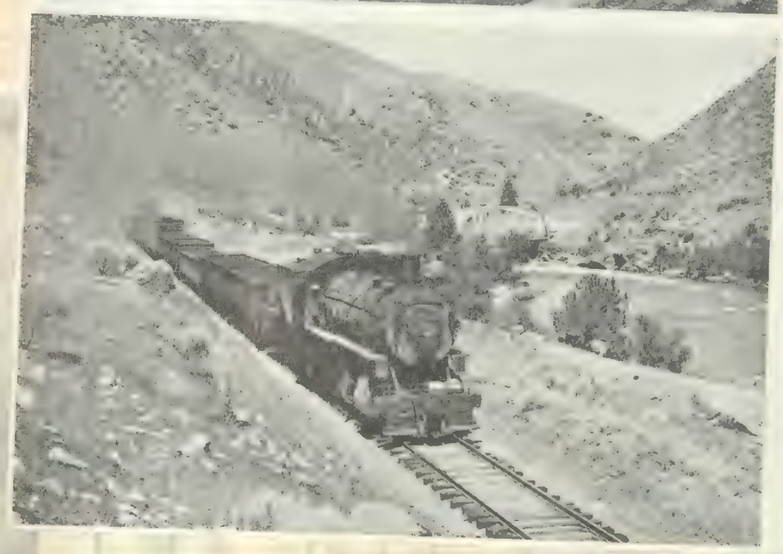
old

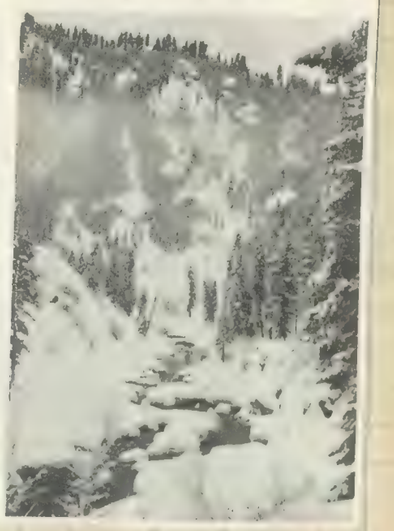
Clos. No.

Trn 385, three engines and 22 cars along the Payette River north of Banks



The Idaho Northern branch runs 133 miles from Nampa northward to McCall↑. Fertile Emmett Valley↖ is famous for its cherries and other agricultural products. Smoke marks the town of Emmett. Black Canyon Dam↖ furnishes water and electricity for the valley. The railroad skirts the dam at extreme right of picture. Train↙ is in Payette River Canyon near Horseshoe Bend. Snow↓ blankets the canyon in winter.



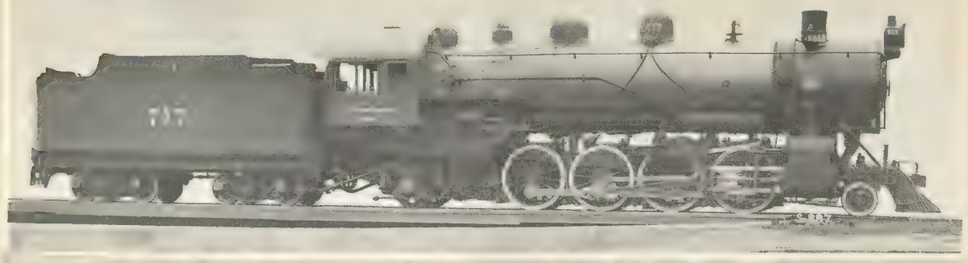


WITH SPUNK belying her size, Consolidation No. 530 spits exhaust that would do credit to a Big Boy as she climbs the grade at Banks, Ida.

A northbound extra of 60 empty stock cars needs three 2-8-0's to keep them moving up the hill between Banks and Smith's Ferry

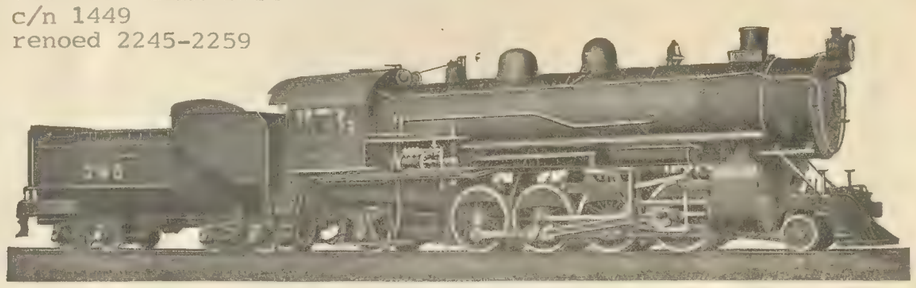
194

710-719 c/n 51625 Schenectady 1912
To UP #2217



2260-2279
Baldwin 1917
c/n 47565

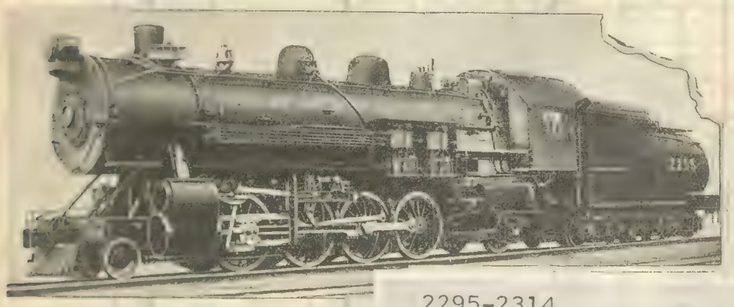
745-759 Lima 1914
c/n 1449
renoed 2245-2259



15—UNION PACIFIC MIKADOS—51,075 LB. TRACTIVE EFFORT OKM

PASSENGER 2-8-2

BALDWIN-BUILT Mikado No. 2265, a pre-World War I machine with comparatively high 63-inch drivers, went to work hauling passenger trains up Sherman Hill. Straight-boilered 2-8-2 boasted vestibule tender, equalized passenger trucks, Delta trailing truck, Sunbeam headlight. Normally considered a freight-only machine on other roads, 2-8-2's saw varnish service for years on UP. Other UP Mike high jinks: light U.S.R.A. 2-8-2's . . . rarity for a Far West road.



2295-2314

Brooks 1920

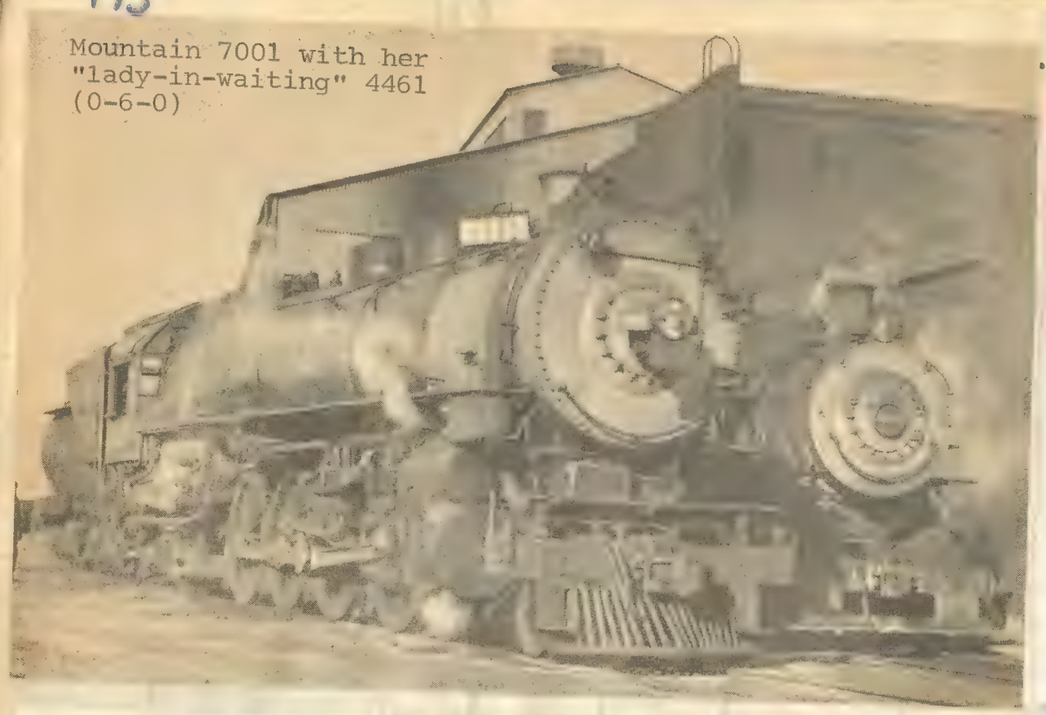
Kansas City

UNION PACIFIC'S ENGINE 2274 WITH FREIGHT DRAG NEAR NORTH PLATTE, NEB. RR. Photographic Club

2-10-2 (5317) and 4-8-8-4(4015) depart the Cheyenne yard with 75 cars of westbound tonnage

Ogden engine terminal

195



Mountain 7001 with her "lady-in-waiting" 4461 (0-6-0)

PULLMAN 1925

Oil-burning 2-8-8-0 3506 assists coal-burning 4-6-6-4 3931 with a 114-car westbound drag near Sherman on May 13, 1951.

Cheyenne c 1870

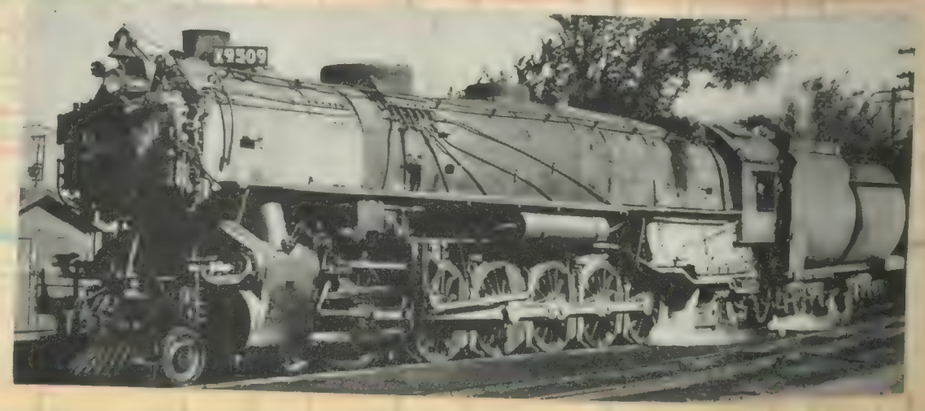
Orginal Missouri River bridge-blt 1872

A passenger extra of six cars rolls over the crest at Sherman behind one of the Pacifics delivered by Schenectady 1912

Richard H. Kindig

The Pacific Limited at Granger, Wyo.

R. H. Kindig



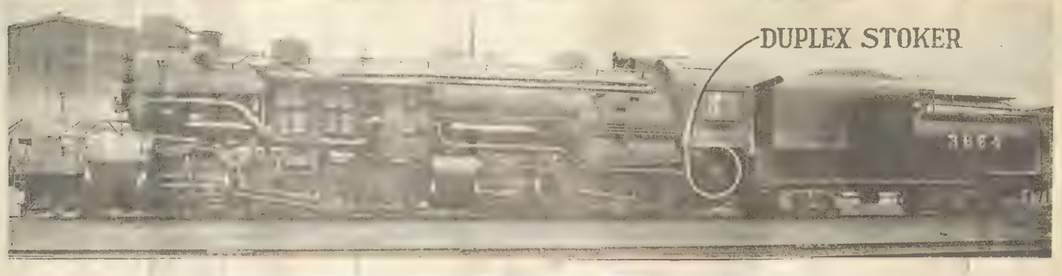
3615-3633 c/n 61907 Brooks 1920

Clos. Clos. No. Sold Amount

BUILT FOR THE UNION PACIFIC RAILROAD

Total Weight of Engine, 487,500 pounds; Weight on Drivers, 457,500 pounds; Diameter of Drivers, 57 inches; Boiler Pressure, 210 pounds; Cylinders, 26 x 41 x 32 inches; Tractive Power, Compound, 103,000 pounds; Tractive Power, Simple, 123,600 pounds.

3645-3664 c/n 65670 Brooks 1924



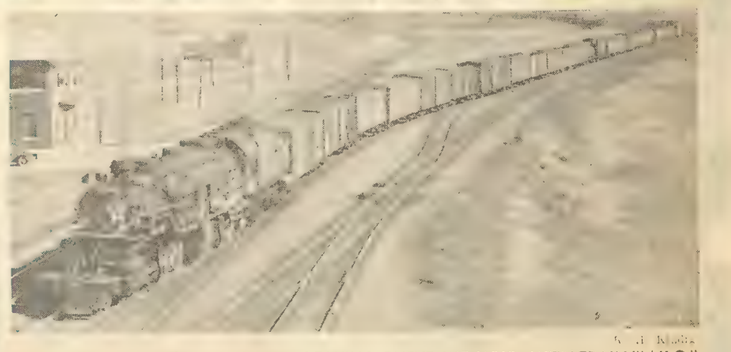
MONSTERS, low-drivered Chesapeake & Ohio simple 2-8-8-2's (30 of 'em), showed up on Union Pacific in 1945 to pull the road out of a dire motive power shortage. Built by Alco and Baldwin for coal hauling (and displaced on C&O by T-1 class 2-10-4's), the C&O 1500-series engines were renumbered UP 3570-3599 and went to work hauling tonnage and operating as helpers on Sherman Hill out of Cheyenne. The 57-inch drivers just couldn't keep the pace on speed-conscious UP, however, and were scrapped in 1946-47. Mementos remain, however; two C&O tanks were converted to steam generator cars for use behind freight diesels working passenger trains. Cheyenne Shops drastically altered appearance of C&O machines — witness the Wyoming action scene on page 20.

3500-3514
Schen 1918

Often refered to as "Bull Mooses", the U.P. received 65 of these 2-8-8-0's between 1918-1924. The first 15 were blt by Schenectady with remainder by Brooks. Seven similiar engines were delivered to the OSL and three for the OWRR&N. All renoed as 3500rds.

UNION PACIFIC SUPERPOWER ROLLS TOWARD DENVER

3567-3569
Brooks 1923
OWRR&N



UNION PACIFIC LOCOMOTIVE 3545 LEAVING CHEYENNE, WYO., WITH TRAIN "M.K.C."

R. H. Kindig

UNION PACIFIC'S ENGINE 3591 (Former C&O ENGINE) NEAR BORIE, WYO.

197

Union Pacific 4-6-6-4

We shall always be in debt to brave souls such as Stan Kistler who withstood bone chilling temperatures of the Nebraska plain to record this excellent action of Extra 3801 leaving Sidney in November 1956

The CHALLENGERS [4-6-6-4] Constructed by Schenectady

Order Number	Numbered	Renumbered	Construction numbers	Built
S-1757	3900-3914	3800-3814	68745-68759	1936
S-1779	3915-3933	3815-3833	68924-68942	1937
S-1779	3934-3939	3834-3839	68943-68948	1937
S-1855	3950-3969		69760-68779	1942
S-1879	3975-3979		70158-70162	1943
S-1879	3980-3993		70169-70182	1943
S-1879	3994-3999		70678-70683	1943
S-1938	3930-3949		72792-72811	1944

The 3912, one of the inital "Challengers" 3900-3914 Alco 1936

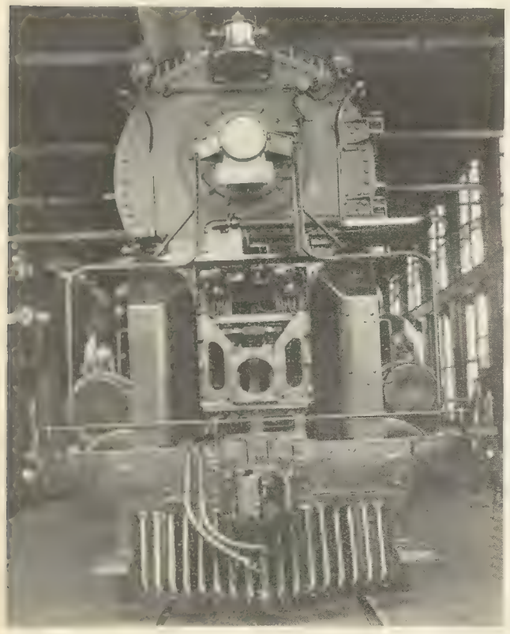
[illegible] Freight Locomotive

c/n 68747

A Powerful High-Speed Freight Locomotive

4-6-6-4 type built for the Union Pacific by the American Locomotive Company develops 97,400 lb. tractive force and has boiler for high power output

DURING August and September the Union Pacific received 15 single-expansion articulated locomotives of the 4-6-6-4 type from the American Locomotive Company. These were designed for high-speed freight service and are operating in mountain territory. They have a total engine weight of 566,000 lb., of which [illegible] lb. is on the drivers, and develop a starting tractive force of 97,400 lb. The boilers carry a working pressure of 255 lb. per sq. in.; the cylinders are 22 in. by 32 in., and the driving wheels 69 in. in diameter. The boilers have a combined heating surface of 7,031 sq. ft. and the grate has an area of 108.2 sq. ft.



[illegible] essors Are Located on the Front Deck—The Hot-Water [illegible] of the Feedwater Heater is Mounted on the Smokebox Front

The design of these locomotives includes a number of unusual features and they mark a return to the articulated type of locomotive on this railroad for heavy freight service.* Among the features of particular interest is the use of silico-manganese steel in the barrel courses of the boiler, the backbone construction built into the frame system of the front engine and the universal flexibility of the articulation hinge, with special provisions for stabilizing the riding of this unit under the single bearing by which the boiler is supported on it.

General Dimensions of Union Pacific 4-6-6-4 and 4-12-2 Type Locomotives

	4-6-6-4	4-12-2
Builder	American	American
Rated tractive force, lb.	97,400	96,650
Weight on drivers, lb.	386,000	355,000
Total engine weight, lb.	566,000	495,000
Cylinders, diameter and stroke, in.	4–22 × 32	2–27 × 32 1–27 × 31
Boiler pressure, lb.	255	220
Grate area, sq. ft.	108.2	108.25
Total evaporative heating surface, sq. ft.	5,381	5,853
Superheating surface, sq. ft.	1,650	2,560

The Boiler

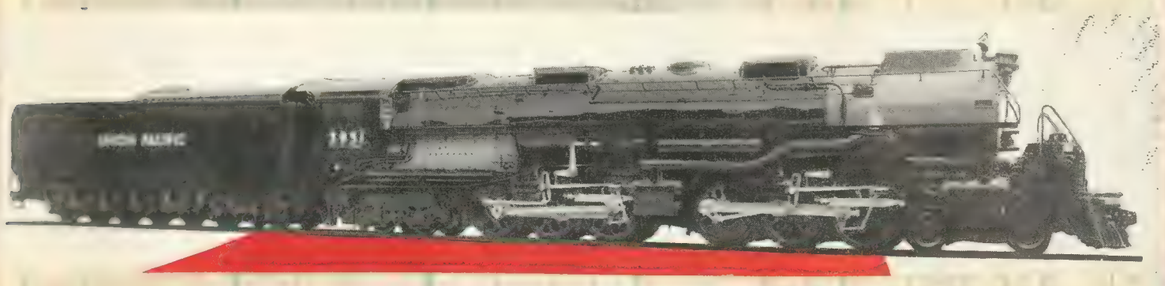
The boiler is conical in form, with an inside diameter at the first course of 96 1/16 in. and an outside diameter at the third course of 102 in. The firebox is of larger size than is indicated by the grate area. A Gaines arch is installed with a brick wall across the firebox, 5 ft. 9 in. back of the front throat sheet, thus adding to the volume of the combustion chamber which extends 86 in. from the throat sheet into the barrel of the boiler. There are five 4-in. arch tubes. The firebox is designed

* A comparison of the principal dimensions and proportions of these locomotives and the 4-12-2 type of the Union Pacific are presented in a table.

Ry Age Sept 1936

900

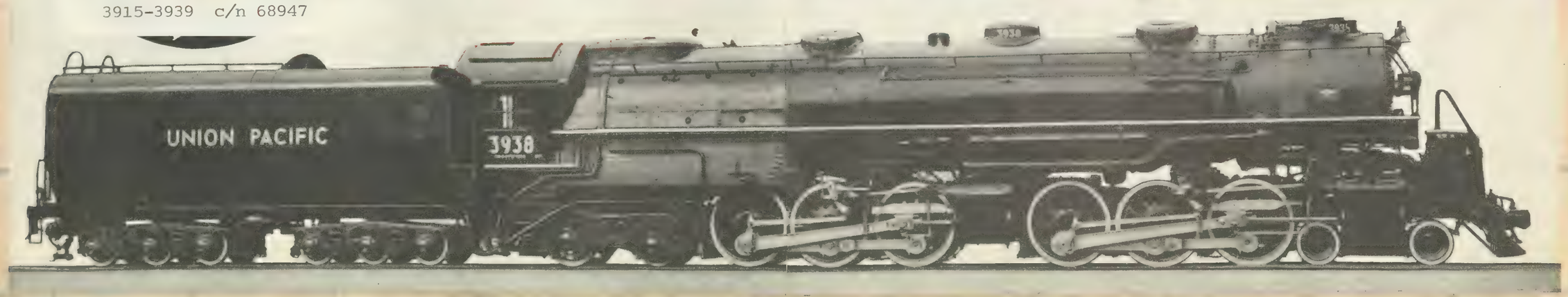
Neither rain, nor snow, nor sleet ..... the 3812 slices thru the storm with the Second Section of the westbound mails. Another of the superb paintings by artist Howard Fogg.



U. P. Extra 3950 East, latest 4-6-6-4 Type built for that road, in Echo Canyon, Utah on the Eighth Subdivision of the Wyoming Division. Courtesy Union Pacific R.R.

3950-3969 Alco 1943

3915-3939 c/n 68947



199

k

3950-3968 Schen 1942

AT

Amount	Class No.	Sold	Amount	Class No.	Sold

c/n 69777

UNION PACIFIC ENGINE 3932 STALLED IN SNOW NEAR RAWLINS, WYO.
This engine, along with engine 3949, was stalled in the snow six miles west of Rawlings on February 13, 1949. Photo was taken by Bro. S. H. Stephens, Div. 44, engineer.

An Eastbound fruit block behind the 3968 in the high plains near Archer, Wyo.

200

Sold

Sherman Hill slows the incessant parade of UP trains and bunches them so that at practically any moment there is one in sight, with exhausts of a pair of powerful articulateds blasting skyward. The nature of the country is such that, while hilly, it affords views of great distance.

Henry R. Griffiths, Jr.

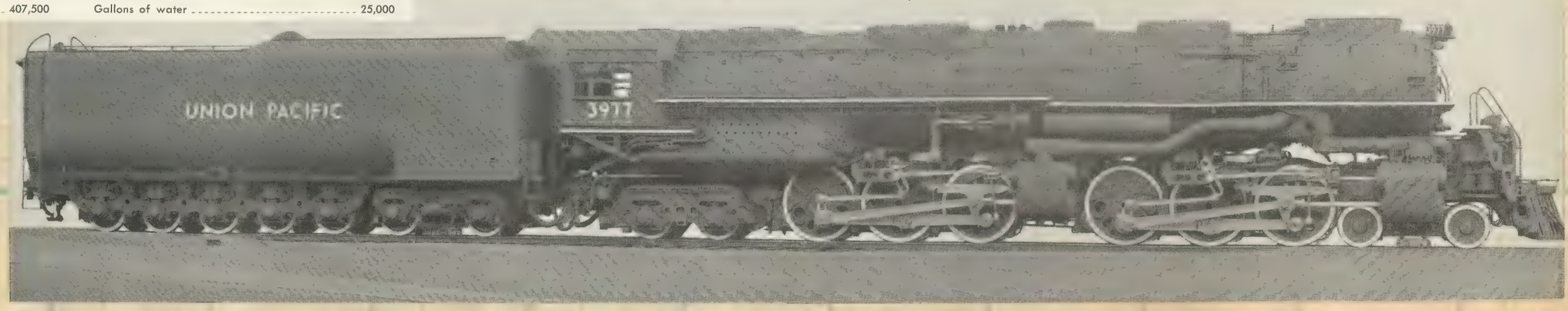
Union Pacific 3968, a 4-6-6-4, leaving Green River, Wyo. with 95 cars. April 1950

"ON UNION PACIFIC SYSTEM"

LAKE MARIE AND SNOWY RANGE, NEAR LARAMIE, WYO.

...l numbers of this series	3975-3999
...	Alco, 1943
...ders, diameter and stroke, in.	21 x 32
...ter of drivers, in.	69
...tive force, lbs.	97,350
...r pressure, lbs. per sq. in.	280
...al weight of engine, lbs.	633,500
...eight on drivers, lbs.	407,500
Weight on leading truck, lbs.	102,000
Weight on trailing truck, lbs.	124,000
Weight of engine and tender, lbs.	981,500
Grate area, sq. ft.	132.2
Evaporative heating surface, sq. ft.	4795
Superheater heating surface, sq. ft.	2162
Tender capacity: Tons of coal	28
Gallons of water	25,000

c/n 70160



The 3994 rolls an eastbound fruit block across the North Platte River at Ft Steele, Wyo.

Union Pacific 3993↓, one of the 105 Challenger type engines, starts down Sherman Hill with an eastbound fruit extra and a full head of steam.

Four years ago: Union Pacific 4-6-6-4 No. 3708, with freight extra, takes siding at Archer, Wyoming, for a fast freight.

Pool train No. 457, running from Portland to Seattle with Union Pacific equipment including a gray, smoke-deflectored Challenger on the front, uses Milwaukee Road iron at Black River, Wash., to cross over NP and GN lines and reach UP rails.

In November, 1951, 4-6-6-4 Number 3953 approaches Sherman with 74 cars at 35 miles per hour. Such eastbound freights on Sherman Hill, traversing the easier grade from Laramie via Colores, seldom required helpers.

Ship Union Pacific for Speed • Economy • Prompt Service

Keeping step with shippers' needs, Union Pacific freight service is unexcelled for speed, dependability, low cost, and convenience.

In addition to the fast overnight freight service maintained between principal shipping and receiving stations, the new Union Pacific Merchandise Service provides free pickup and delivery of less-than-carload and package shipments, at nearly every station reached by the railroad.

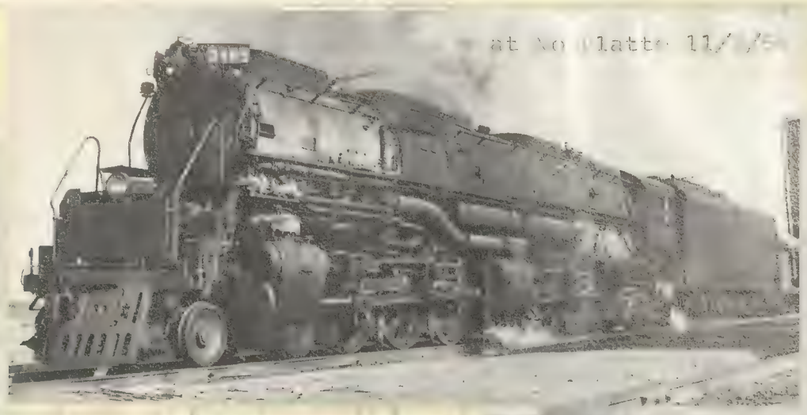
Union Pacific service for carload shipments is second to none.

For expert assistance with your shipping problems, consult the nearest Union Pacific Freight Traffic Representative or Freight Agent — or write, wire or phone to

L. T. WILCOX
General Freight Traffic Manager
Union Pacific Railroad • Omaha, Nebraska

R. H. Kindig.

3985 near Rock River, Wyo.



Union Pacific challenger 3985 shortly after leaving Cache Junction, Utah on June 21, 1982. The resurrected 4-6-6-4 is seen on a ferry trip from Pocatello, Idaho to Salt Lake City Utah. The huge locomotive weighs 633,500 lbs. and was one of 25 units built by Alco in 1943.

Larry W. Richards.

WORLD'S LARGEST operating steam locomotive—Union Pacific 4-6+6-4 3985—rolls 14 cars on June 26, 1982, Salt Lake City-Provo, Utah, round-trip excursion sponsored by NRHS Promontory Chapter. Articulated ignited a rash of lineside fires on her outing to Idaho and Utah.

The old Denver Pacific enginehouse at LaSalle, Colorado on afternoon in Jan. 1955. This became an important junction point after the Julesburg cutoff was built in 1880. Engs 2121 a 2-8-2, 2298 (UP) 2-8-2 and 6070, 2-8-0.

DENVER PACIFIC RAILWAY photographs are collector's items, with only a scattered few known to exist. This copy of an old half-tone engraving shows Denver Pacific's Engine No. 4, an American Standard named the WALTER S. CHEESMAN in honor of one of the directors of the road residing in St. Louis, Missouri. In the 1870's, the road was under the guidance of President D. M. Edgerton, General Manager Robert E. Carr, and General Superintendent T. F. Oakes. Mr. C. W. Fisher was Asst. Superintendent and John McKenzie held the position of Master of Machinery.

The 2492 drifts by the depot at LaSalle while the 2498 is under the LaSalle coaling sta. Both are light USRA 2-8-2's blt at Schenectady 1918 and part of twenty (2480-2499) assigned to the U.P.

2245-2259
Lima 1914

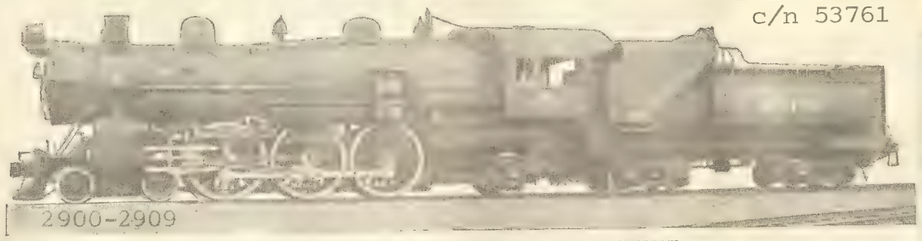
UNION PACIFIC'S ENGINE 2243 AT LA SALLE, COLO.

204

UNION PACIFIC'S ENGINE 3217 HAULING FREIGHT AT WALLA WALLA, WASH.

Schen delivered ten (161-170) of these elegant Pacifics in 1912. c/n 51607 Renoed 2869

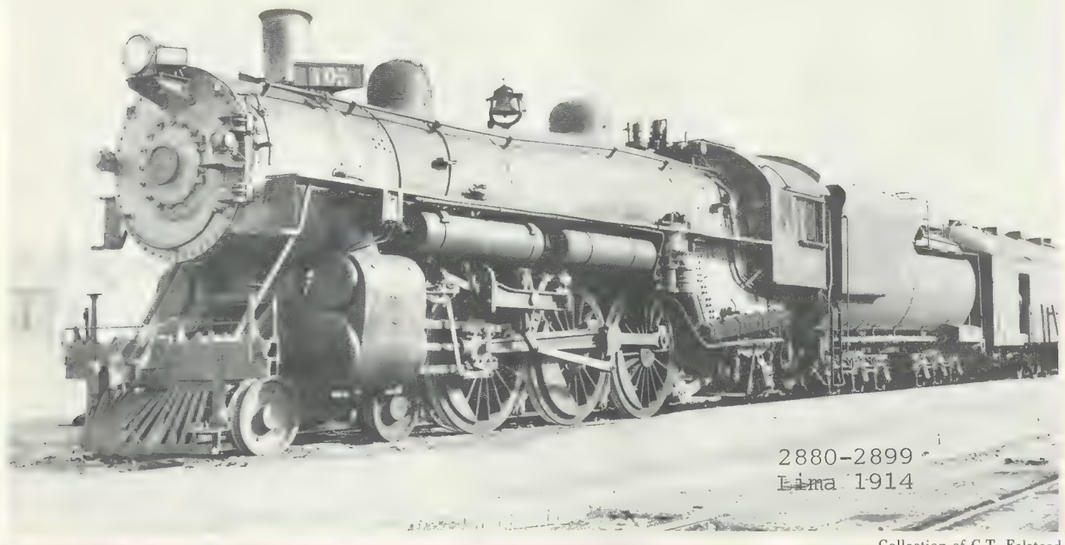
Baldwin 1920
c/n 53761



PACIFIC TYPE PASSENGER LOCOMOTIVE

Cylinders, 25 x 28 inches
Drivers, diameter, 77 inches
Steam pressure, 200 lbs.
Grate area, 70.4 sq. ft.
Water heating surface, 3998 sq. ft.
Superheating surface, 815 sq. ft.
Weight on drivers, 167,700 lbs.
Weight, total engine, 278,100 lbs.
Tractive force, 38,640 lbs.

OKM



Collection of C.T. Felstead

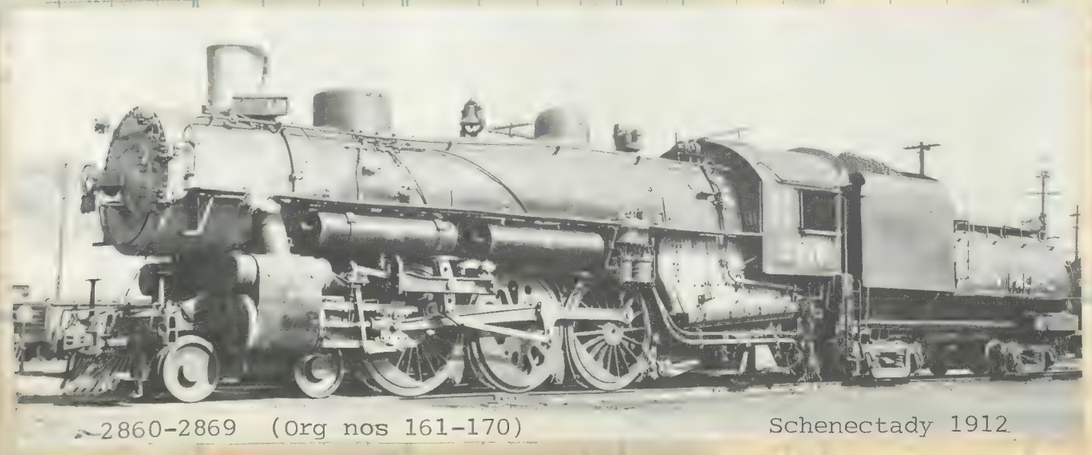
181-199 LIMA 1914
c/n 1442

renoed 2889

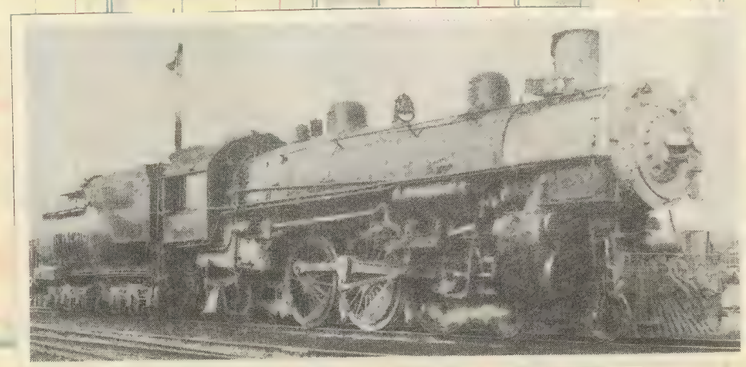
Latest Development of the Pacific Type Locomotive on the Union Pacific

OKM

Fig. 65—Pacific Type (4-6-2) Locomotive for Passenger Service. Built by the Lima Locomotive Corporation for the Union Pacific. Cylinders, 25 in. x 28 in. Steam Pressure, 200 lbs. Diameter of Drivers, 77 in. Tractive Effort, 38,600 lbs. Heating Surface—Tubes, 3,731 sq. ft.; Firebox, 235 sq. ft.; Total, 3,966 sq. ft.; Superheater Surface, 815 sq. ft. Grate Area, 70.4 sq. ft. Wheel Base—Driving, 13 ft. 4 in.; Total, 35 ft. 8 in. Weight on Drivers, 164,100 lbs. Total Weight of Engine, 273,500 lbs. Fuel, Soft Coal.



2860-2869 (Org nos 161-170) Schenectady 1912



205

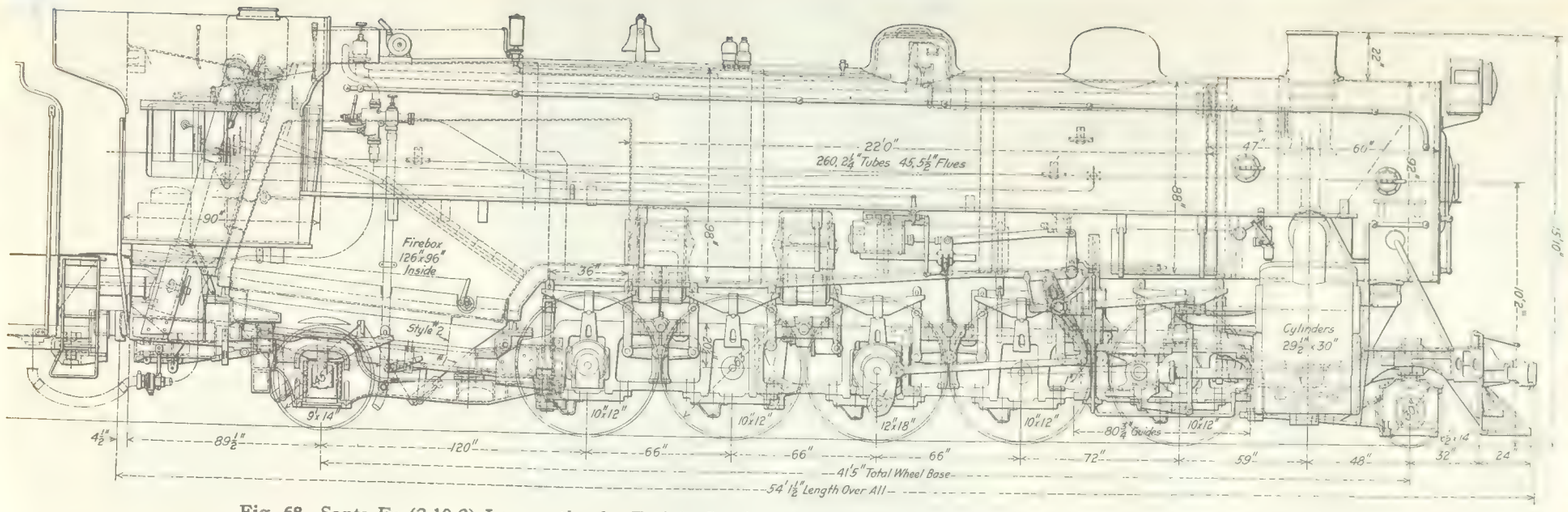
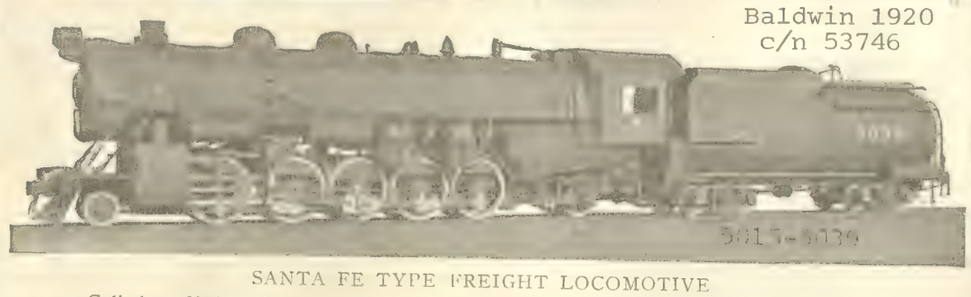

22'0" 260 2¼" Tubes 45 5½" Flues
Firebox 126"x96" Inside
Style "A"
Cylinders 29½"x30"
4½" 89⅛" 120" 66" 66" 66" 72" 59" 48" 32" 24
41'5" Total Wheel Base
54'1⅛" Length Over All

Fig. 68—Santa Fe (2-10-2) Locomotive for Freight Service. Built for Union Pacific by the Baldwin Locomotive Works.
(See also Fig. 69.)

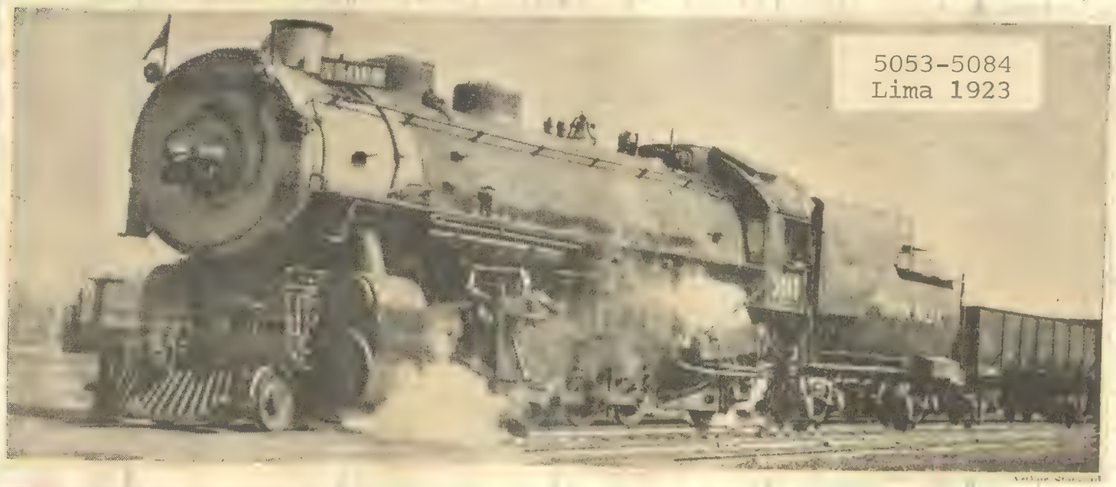
Fig. 69—Santa Fe (2-10-2) Locomotive for Freight Service. Built for Union Pacific by the Baldwin Locomotive Works. 1917

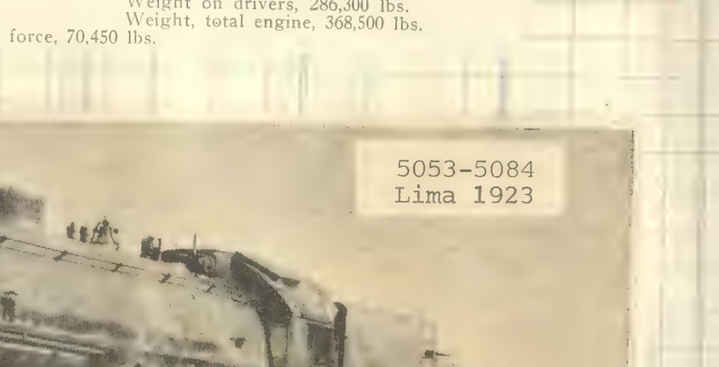
Gage	4 ft. 8½ in.	Heating Surface, Firebox	378 sq. ft.
Steam Pressure	200 lbs.	Heating Surface, Superheater	1,262 sq. ft.
Tractive Effort	70,450 lbs.	Grate Area	84 sq. ft.
Rigid Wheel Base	22 ft. 6 in.	Weight on Drivers	285,500 lbs.
Driving Wheel Base	22 ft. 6 in.	Weight, Total	357,600 lbs.
Heating Surface, Tubes	4,774 sq. ft.	Fuel	Soft coal



SANTA FE TYPE FREIGHT LOCOMOTIVE

Cylinders, 29½ x 30 inches
Drivers, diameter, 63 inches
Steam pressure, 200 lbs.
Grate area, 84 sq. ft.
Water heating surface, 5148 sq. ft.
Superheating surface, 1165 sq. ft.
Weight on drivers, 286,300 lbs.
Weight, total engine, 368,500 lbs.
Tractive force, 70,450 lbs.





UNION PACIFIC ROTARY SNOWPLOW AT WORK AT ROCK RIVER, WYO., AFTER BLIZZARD IN 1917

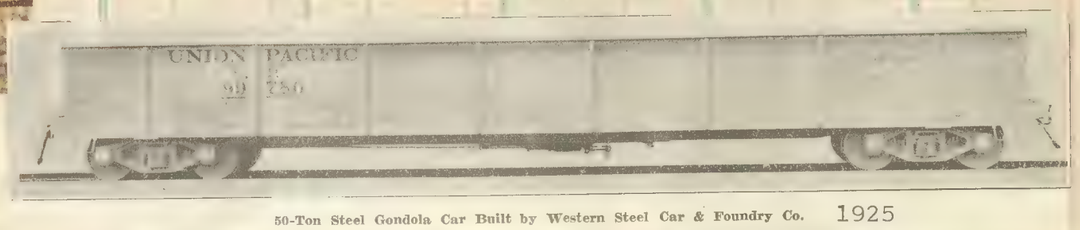
On the open high plains west of Cheyenne a 2-10-2 and a 4-6-6-4 work a westbound Extra up Sherman Hill.

Amount | Clos. No.

"ON UNION PACIFIC SYSTEM"

TEAKETTLE, GIANT'S THUMB AND CASTLE ROCK, OVERLOOKING GREEN RIVER, WYO.

Sold | Amount



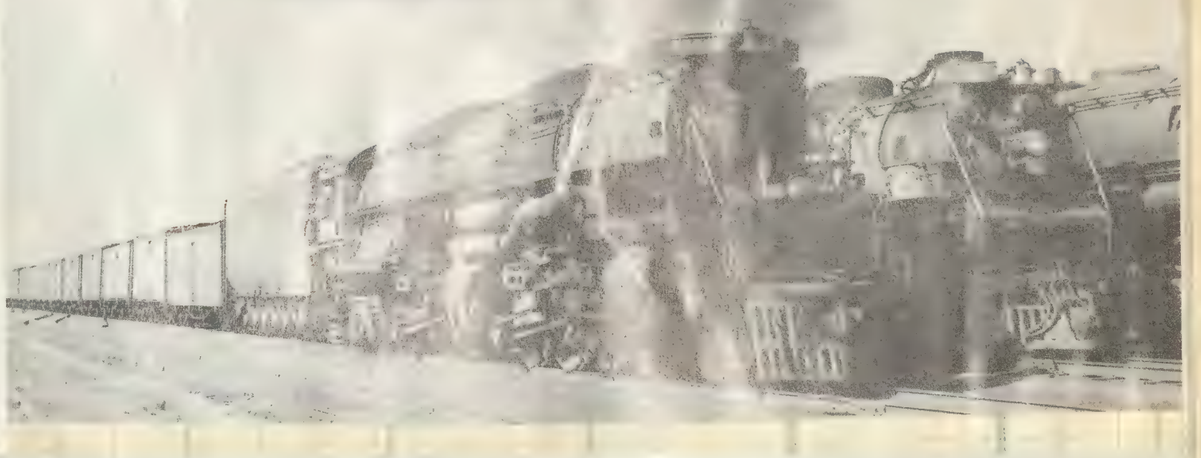
50-Ton Steel Gondola Car Built by Western Steel Car & Foundry Co. 1925

PLOVER'S EGGS AND CLARET

The Union Pacific diner of the year 1870 was a more robust restaurant than are the snack-cars of to-day. While the Mormon behind him peruses Mr. Greeley's New York *Tribune*, the gentleman front and right refreshes himself with a half bottle of Perriet Jouet, English *cuvée*. The vintage of '64 was highly esteemed at the time.

Early Union Pacific dining car

No 4, the UTAHN, glides past Extra 3956 east just west of Laramie

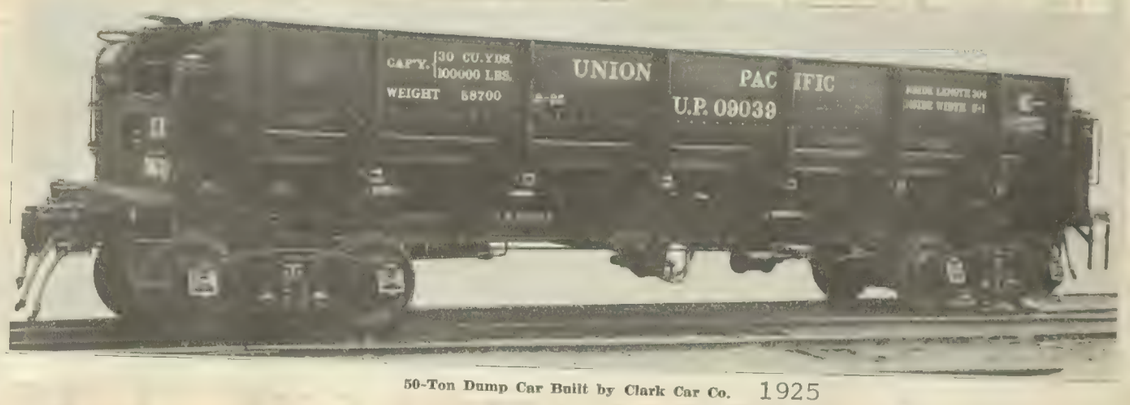


Such a scene today would put a person of the DEQ into spasms of agony!--The 9043, a 4-12-2 rolls #472 over the Kansas Div.

LIMA Jan 1950
c/n 9388

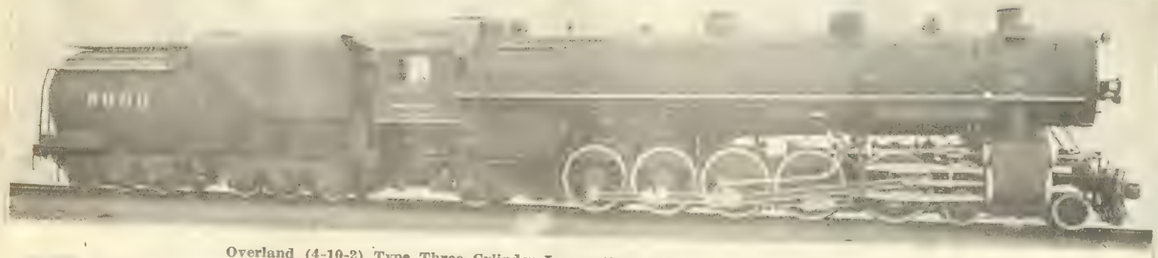
207

Class No. Sold



50-Ton Dump Car Built by Clark Car Co. 1925

Pullman 1923



Overland (4-10-2) Type Three Cylinder Locomotive Built by American Locomotive Co.

Weight on Driving Wheels, 288,500 pounds; Weight of Engine, 405,000 pounds; Three Cylinders, 1—25x28, 2—25x30 inches; Diameter of Driving Wheels, 63 inches; Boiler Pressure, 210 pounds; Maximum Tractive Power, 78,000 pounds.

Brooks 1925 c/n 66169 Renoed LA&SL 8809, 5090 rebIt 1942

The 3965 and 4016 making money for the company on Sherman Hill

John Shaw.

TWO-CAR EXTRA EXTRA 6067 WEST chuffs placidly down the 20-mile Anaheim Branch in April 1947 with an elderly Consolidation that was in steam when E. H. Harriman was alive. An extra board fireman might catch an engine this size one day, a 2-10-2 the next!

Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos. No. | Sold | Amount | Clos | ount

East of Cheyenne
August 20, 1906

Ralston Steel Car Co--1922

Hermosa Tunnel, really two bores under a single hill. Extra 3968 East rolls out of one tunnel exit through a sand-washed cut, its double-stacked 4-6-6-4 heading for Cheyenne yards.

Lloyd Stagner

Union Pacific Big Boy 4004 is west of Cheyenne, Wyo. hauling fast freight SPX with 60 cars. The massive 4-8-8-4 was photographed at 6:55 am on August 31, 1958.

Refreshments are served in the cozy Cocktail Lounge.

The Club Observation Car has built-in radio, writing desk, current magazines, deep, soft lounge seats.

Omaha Shops c 1905

City Ticket Office-Omaha

em

. No. Sold

No 21, the PACIFIC LIMITED,
departs Cheyenne Dec 22, 1940
behind the 2296 & 804

Amount Clas. No

DENVER PACIFIC RAILWAY was a standard gauge line extending 106 miles between Denver City, Colorado, and Cheyenne, Wyoming Territory. It was constructed under a charter of the Union Pacific, Eastern Division, Railway, the road that later emerged as the Kansas Pacific. The Denver Pacific was opened for traffic on June 23, 1870, and was operated under the control of the Kansas Pacific. This photo shows one of the line's Baldwin eight-wheelers with the first train into Greeley, Colorado.
(Courtesy of Denver Public Library's Western Collection)

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"Western Railway Station" by Oscar Beringhaus

"ON UNION PACIFIC SYSTEM"

UNION PACIFIC STATION. TRACK SIDE CHEYENNE WYO

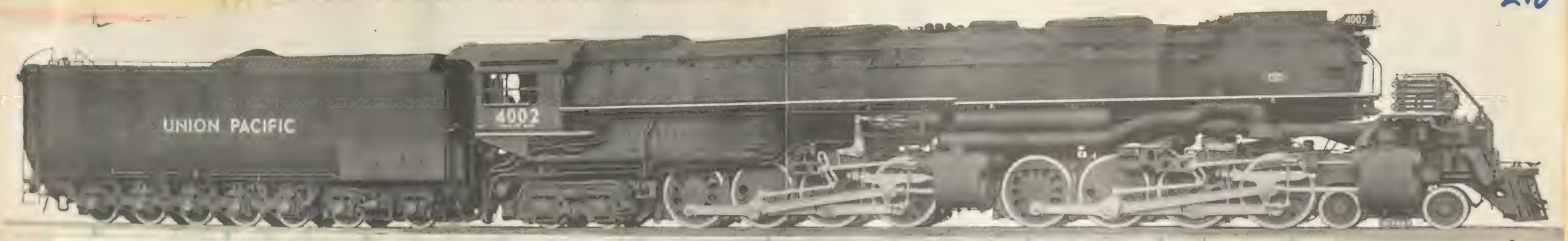
Walter R. Grande.
DENVER 1948: steam "not quite gone." Union Pacific 4-8-4 823 has train 38 in tow.

Oh, what a beautiful morning--
Oh, what a wonderful day!!!

Denver enginehouse

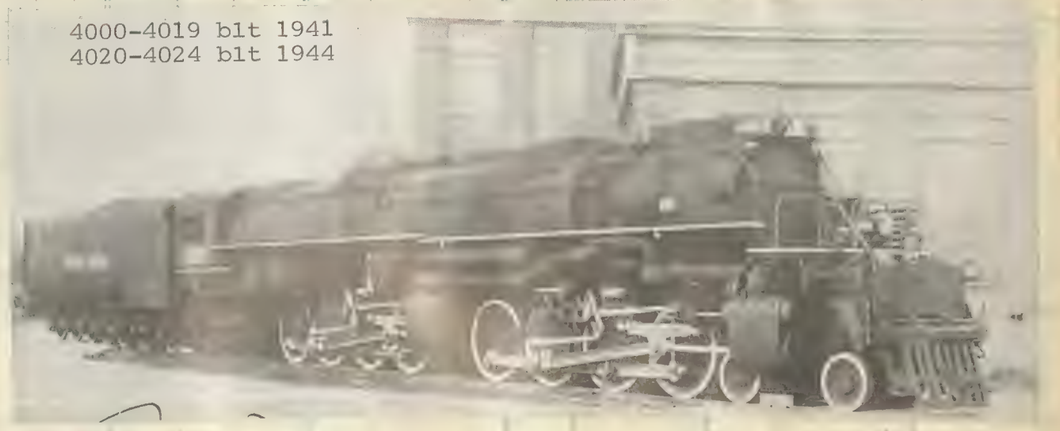
Coffee-Shop Dining Car on Union Pacific "Challenger"

Cat. No.

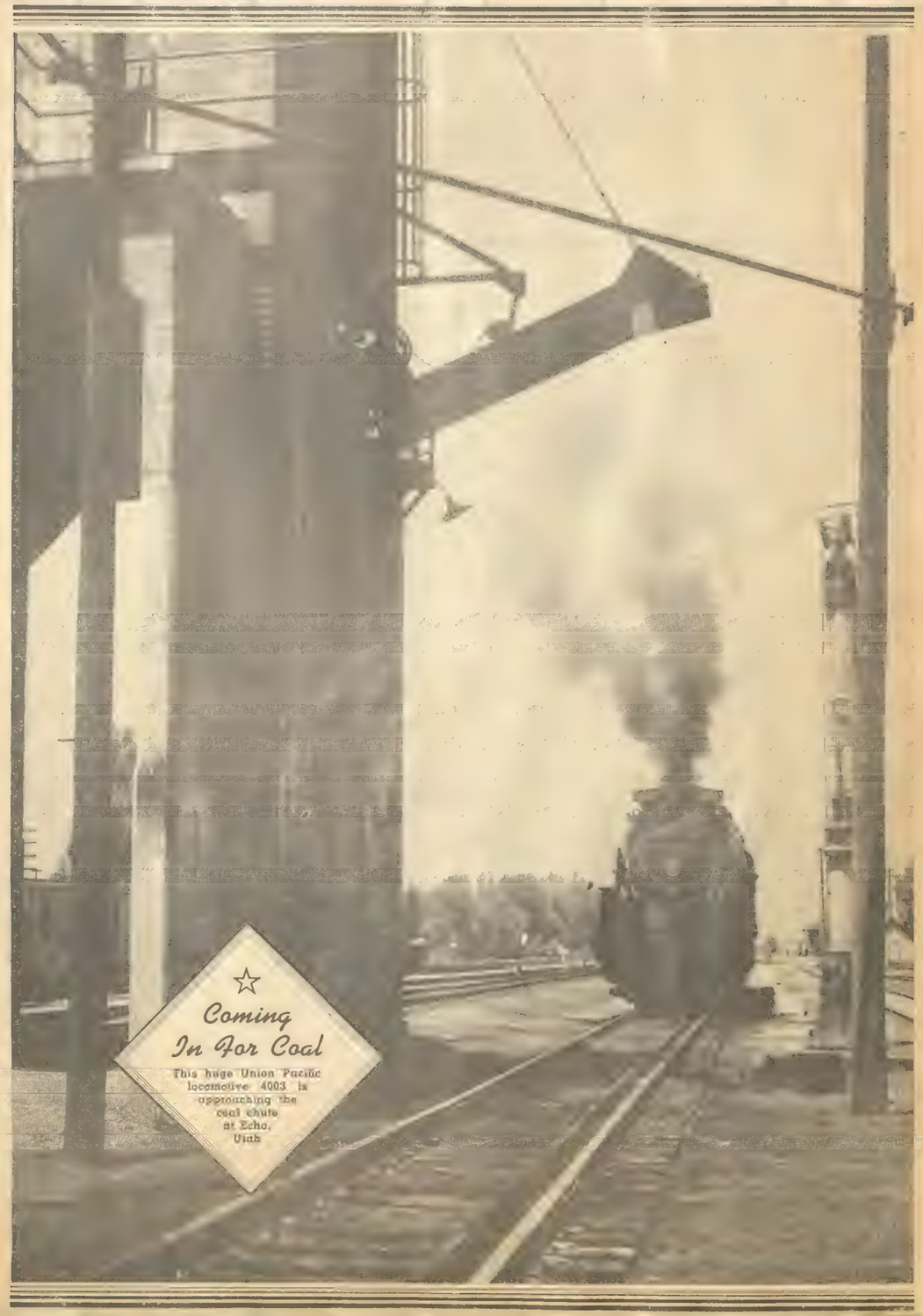


Engine No. 4000, first of the UP's famous "Big Boys," passes Sherman, Wyo., highest point on the first transcontinental route.

4000-4019 blt 1941
4020-4024 blt 1944



One of the "Big Boys" leaving Green River, Wyo. Otto C. Perry, 74 S. Elliot St., Denver, Colo.



☆ *Coming In For Coal*

This huge Union Pacific locomotive 4003 is approaching the coal chute at Echo, Utah

In January of 1949, a severe blizzard swept thru Nebraska and eastern Wyoming in one of the worst storms since the 1880's. At Kimball, Neb., the City of San Francisco had to give up; a 4-12-2 sent in light to provide steam heat also later froze up (as shown) forcing the passengers to seek shelter in town.

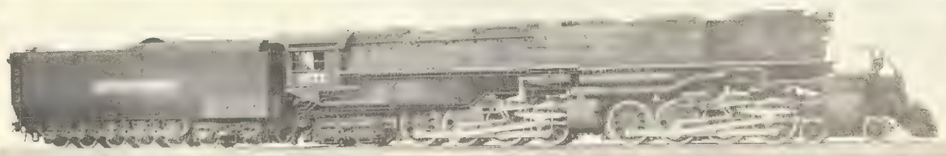
Ross B. Grenard, Jr.

Union Pacific 4-8-8-4 4004 is shown here on a westbound extra at Perkins, Wyo. She is on the new line pulling 130 cars at about 25 mph.

To see one of the Union Pacific's mammoth Big Boys — the largest steam locomotives in the world — coming at you, breathing fire and steam and trailing a mile of freight cars, is an experience to tell and re-tell to your kids. But try to describe in words the way this engine looks as it thunders along at the head of a train on the main line near Castle Rock, Utah!

Clas. No. | Sold | Amount | Clas.

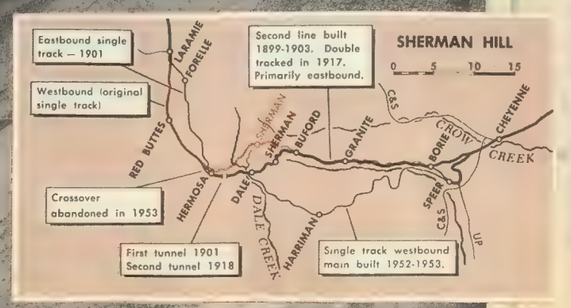
BIG BOY boiler is swung over frames during construction at Alco's Schenectady Works in 1941. "Put a little warm water in 'em and they'll go" was the verdict of a man who fired them.

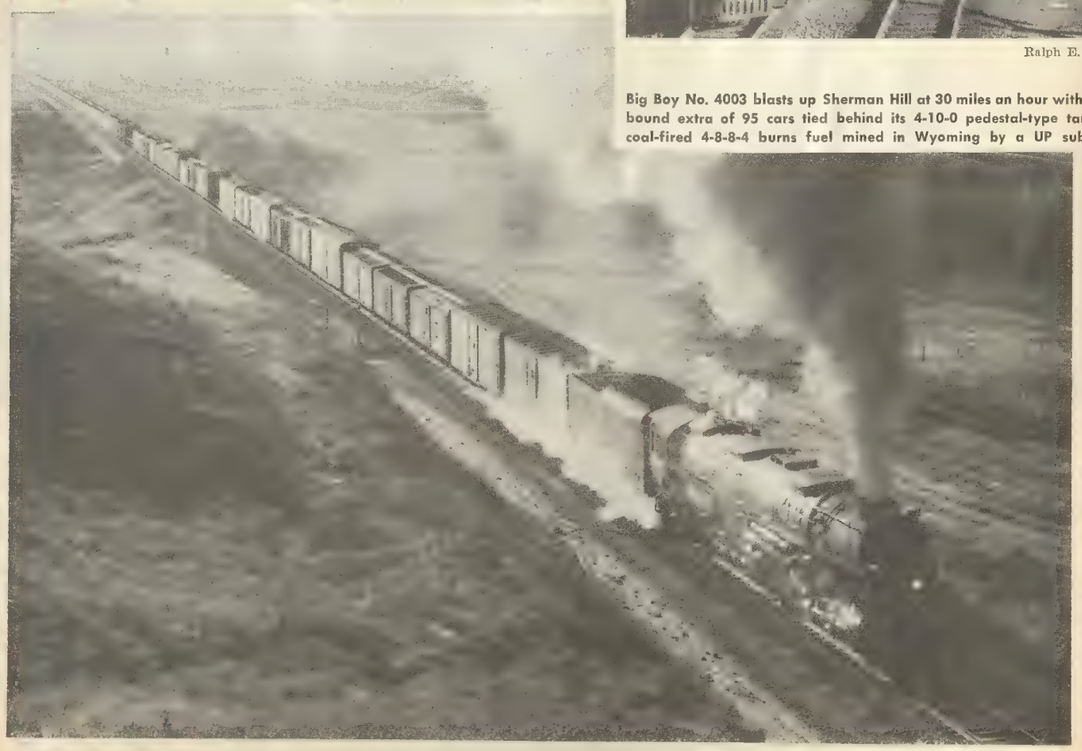


Ralph E. Hallock.

Big Boy No. 4003 blasts up Sherman Hill at 30 miles an hour with a westbound extra of 95 cars tied behind its 4-10-0 pedestal-type tank. The coal-fired 4-8-8-4 burns fuel mined in Wyoming by a UP subsidiary.

W[illegible] wide open and stoker pouring in coal, Extra 4013 West blasts through the open cut east of UP's Hermosa Tunnel. Arthur E. Stensvad.





Richard F. Lind.

EXTRA 4019 WEST thunders into the dawn of August 24, 1958, near Borie, Wyo., as Big Boys talk it up for perhaps the last time.

Just west of Buford twenty eight drivers are digging in as they take tonnage up to Sherman

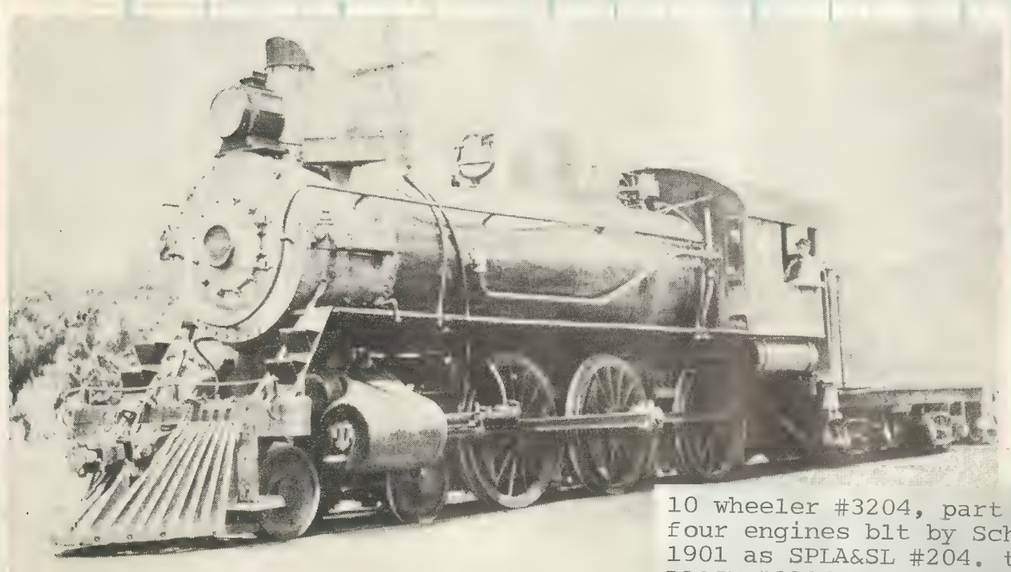
Eastbound-westbound-near No Platte

The Boulder Dam Route

R-46 4-69 200 bks. (Eu... Printed ... ERE ... Make ... ort Sheet

Cles. No. | Sold | Amount | Cles.No. | Sold | Amount | Cles.No. | Sold | Amount

A twelve car passenger extra hurries along behind Mountain type #7853



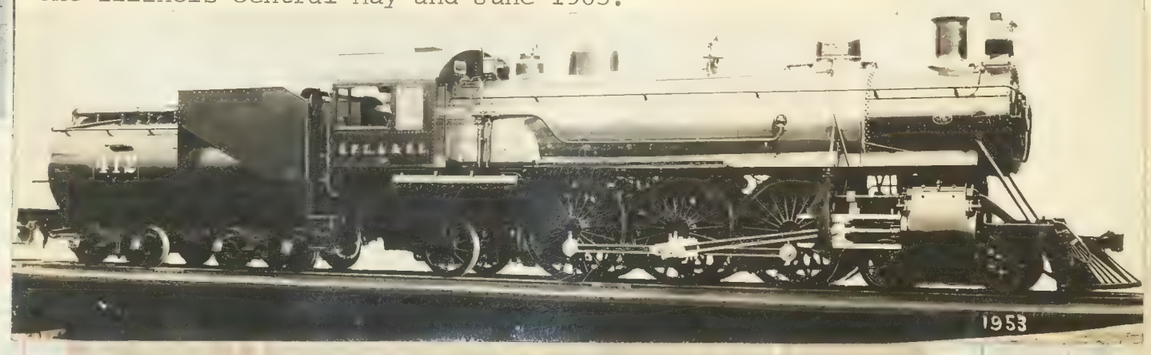
10 wheeler #3204, part of four engines blt by Schen 1901 as SPLA&SL #204. to LA&SL #3204, later 1595 Cyls 20x28 dvs 67" and TF 28,418

Baldwin 1914
c/n 41762
to UP 2708

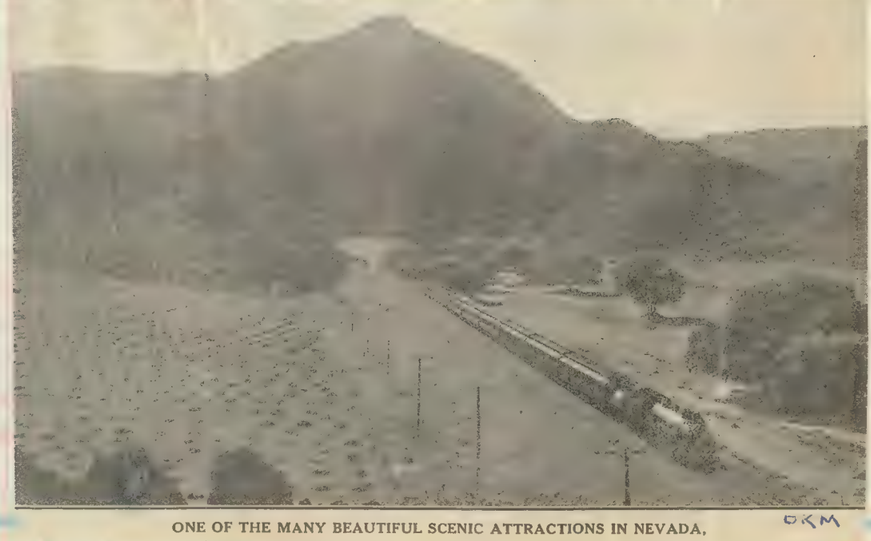
Mikado Type Locomotive, San Pedro, Los Angeles & Salt Lake R. R.
F. E. Davisson, Supt. Machinery.

One engine-later #2708. Cyls 26x28 dvs 63" BP 200 TE 53,628#
Tender: Water 7000 gals Oil 2940 gals

One of the "Harriman" 4-6-2's delivered by Baldwin 1905. Worked on the Erie as a "test" engine April 1905 and on the Illinois Central May and June 1905.



7855 one of fifteen (7850-7864) delivered by Brooks in 1923. Shown here climbing the west slope of Canon Pass.



ONE OF THE MANY BEAUTIFUL SCENIC ATTRACTIONS IN NEVADA,
ALONG THE SALT LAKE ROUTE

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Walter H. Thrall Jr.

You know this man

OF course, you know this man. Recall as to how the *Crescent* was reported late one September evening as twilight closed in over the Carolinas — and how, only moments after a headlight glimmered to the south, her Ps-4 Pacific shook the depot and cotton mills in the glory of her swirling speed? Well, his was the face you glimpsed in dusky firelight, his the hand that gripped the whistle cord, his the eyes that compared an employee timecard with a 21-jewel Hamilton as his 4-6-2 roared through with solid sleepers in her wake.

But his breed was not peculiar to the South. If you observed a T-1 slipping to the thrust of four poppet-valved cylinders as she took the *Admiral* or *Liberty* out of Englewood, Ill., then you saw him adjusting a delicate cutoff. Surely you watched him giving a Mountain type the reins on the *Sunshine Special* through the Ozarks or leaning far out over a padded armrest to see for himself if disc drivers were getting all the sand they needed to conquer Glorieta. Jolting Ten-Wheelers double-shotted on a milk run into Rutland, high-pressure Atlantics propelling welded, lightweight speedliners, Hudsons out of Harmon: he was on the right-hand seatbox.

In the strictest limitations levied upon caption writing, this is Engineer James MacMahon of the Union Pacific's payroll aboard 4-8-2 No. 7856. His fireman made this portrait as MacMahon cracked the whip on the *Los Angeles Limited*, eastbound at 60 miles an hour near Hillgrove, Calif. But you need only glance at this photo — at the man and his machine — to be aware of its universal flavor. The notched-up reverse lever, the authoritative jaw, the cigar, the billowing sheaf of "19" orders and a clearance. They all label Mr. MacMahon as being emblematic of all men who commanded the cabs of passenger locomotives in the saga of steam. Whatever was great and splendid about the top sphere of steam power held true in equal measure for the men in whose hands it was placed. As a rule, they were sympathetic to the flexible capacity of their charges; lack of traction motor ratings and engine r.p.m. readings made it possible for them to be craftsmen, gifted in the art of urging their power beyond drawing-board limits.

Diesels have made automatic what was once the test of skill and understanding. Electric control systems and the nature of internal combustion have made the man you know — MacMahon and his brothers — legendary and heroic figures of another time. — D. P. M.

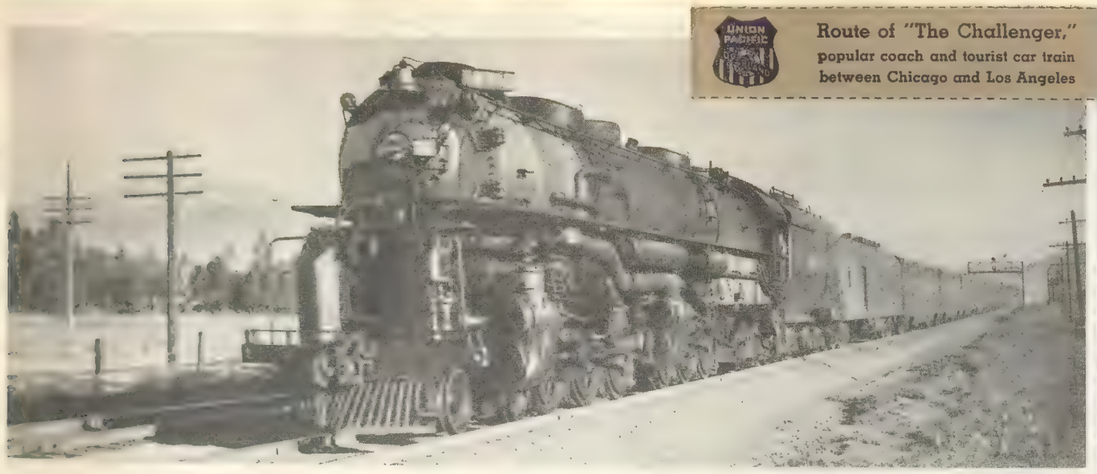
Another noted railroad photographer leans from the cab of Union Pacific Challenger 3830 as he takes this oil-burner westward from San Bernardino in June, 1947. Engineer Walter H. Thrall was noted particularly for his Southern Railway photography in the 1930s.

The fourth section of No. 7, the westbound Challenger, clicks across the east switch at Balch under a scorching noonday desert sun. This is typical of much of the arid C. T. C. territory through which the Los Angeles Division runs between Victorville and Carp.

c 1905 a ten car passenger train pulls away from Elgin, Nevada in the Meadow Valley Wash. Almost yearly this trackage was devastated by floods until a new High Line was put in service in 1912

Union Pacific order boards are normally kept at clear; the arm is raised just before the arrival of trains for which orders have been received. Here a 1944 version of the Pacific Limited approaches Ontario, slowing to receive the orders indicated by the semaphore. Ontario, 39 miles east of Los Angeles, is the approximate western boundary of the vineyard area.

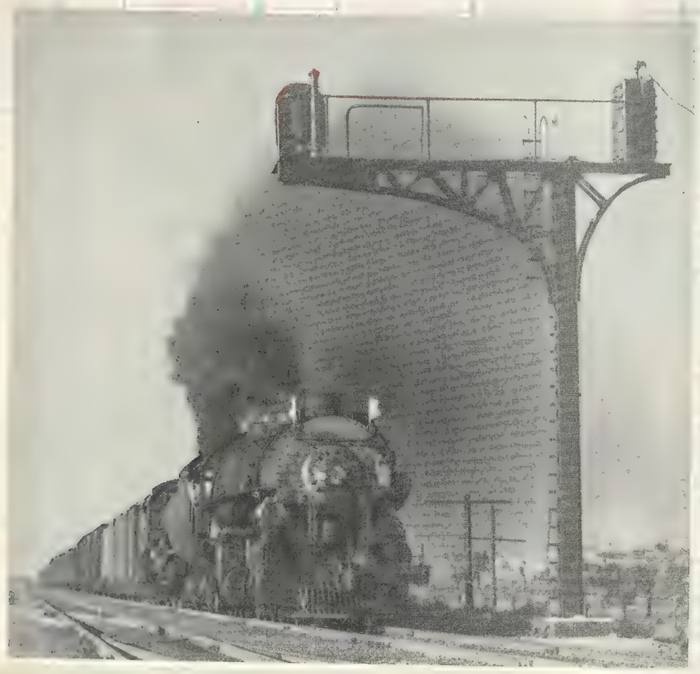
Facilities at Victorville include two helper tracks: one for the Santa Fe, one for Union Pacific. Like 7019 *right*, UP engines generally take the inside track. Far left is Mikado 2730, assigned to the Victorville-Helendale turnaround. Since Victorville is center of an area manufacturing Portland Cement, a switching crew works a 6-day week, using a UP or AT&SF Mike for a 3-month period



Route of "The Challenger," popular coach and tourist car train between Chicago and Los Angeles

John Shaw.

TWO CHALLENGERS GANGWAY! — it's 6:10 a.m. on a June morning in 1940 and Challenger 3935 rolls west off Cajon Pass at 75 miles per hour on train 717, the Challenger. Strung out behind are 22 cars. The 4-6-6-4's were favorites of the crews.



8800-8808 (LA&SL)
3 cyls

c/n 66726

Brooks 1926

With marker banners snapping in the breeze the 5518, a 2-10-2 delivered by Baldwin in 1924, charges up the Canon.

Four of twenty two Consolidations delivered to the Salt Lake Route by Baldwin in 1907

William Barham.

These two fotos were a gift from the late Herb Sullivan. Both taken in "Herb's Country", Cajon Pass.

Upper is the "Pacific Ltd" behind a 2-8-2 and 4-8-2. At right a 2-10-2 sends her thunder through the rock formations.

Mountain Type 7019 (Brooks 1922) waits on the ready track at Victorville for next helper assignment

Stan Kistler Jr.

CHALLENGER ON CAJON **BACK in November 1947, when the days of Union Pacific steam in Southern California were numbered, Extra 3829 East climbed up Cajon Pass in a sight to stir the soul.**

"ON UNION PACIFIC SYSTEM"

THE OBELISK, NEAR CALIENTE, NEVADA

ether one travels due west, or by Northern or Southern Route, rugged scenery confronts the California traveler. This Nevada Canyon is threaded by the Salt Lake Route.

OKM

Union Pacific Challenger type locomotive at Los Angeles Union Station.

Eastbound No. 4, the erstwhile Transcon↑, enters the third subdivision at Las Vegas. The train at the water column is No. 44. Normally No. 44 preceded the Transcon out of Las Vegas but was overtaken at Rox, 64 miles farther east. One

She did not know it at the time, but, 4-8-4 #844 was destined for a wonderful future. Today, 1982, she still remains to see occasional service.

"ON UNION PACIFIC SYSTEM"

ROCK OF AGES, NEAR CALIENTE, NEVADA

The eastbound "Los Angeles Ltd" works up the Canon behind 2-8-2 #2711 (Lima 1917) and 4-8-2 #7862 (Brooks 1922)

Modern Passenger Station Built by the Union Pacific at Las Vegas, Nev.

Union Pacific Shay.

The UP's grades from Tintic Junction to Eureka and Robinson run as steep as 4 per cent, and the New East Tintic line to Mammoth Mine has a stretch of 6.1 per cent, so it is not strange to find this tough Shay geared engine resting between runs at Tintic Junction.

The 3830 lumbers upgrade through a new cut↓ just east of Sloan which bypasses a tunnel↙ on original line between Salt Lake City and Los Angeles.

Salt Lake City

New Los Angeles Union Station

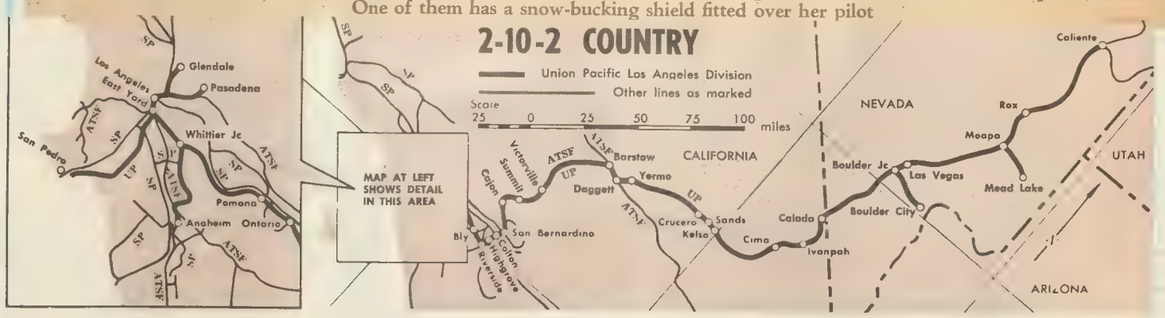
Engs 5523 and 3822 make a smokey departure, westbound, out of Victorville

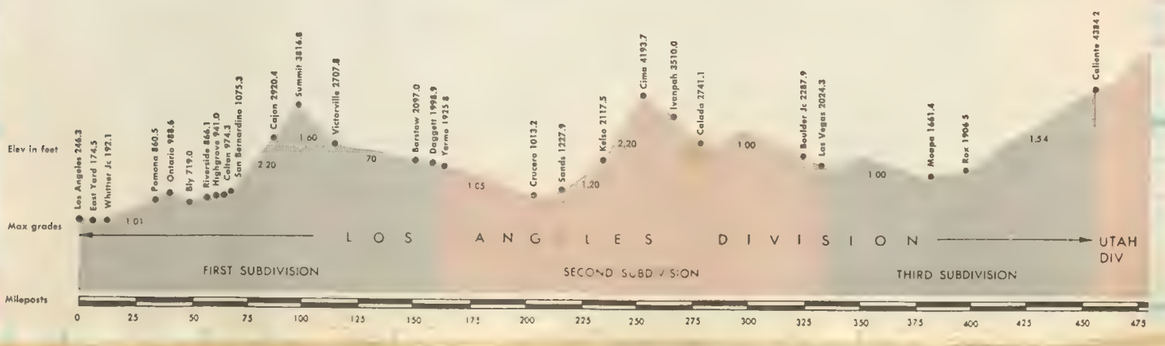
5515-5524 Baldwin 1924

c/n 57793 LA&SL

The 3827 leads tonnage eastbound up Canon

EARLY MOTIVE POWER, ROLLING STOCK AND OTHER EQUIPMENT on the Mormon-built Utah Central Railroad were furnished by the Union Pacific management as part payment of money due to Brigham Young and his followers for their arduous work in grading the right-of-way through Weber Canyon. Two Utah Central eight-wheelers are shown in this photo, dated 1869. One of them has a snow-bucking shield fitted over her pilot





219

UTAH SOUTHERN RAILROAD, a standard gauge line organized in January, 1871, had 12 locomotives on its roster when it was merged with the Utah Central Railroad and the Utah Southern Extension Railroad in 1881, forming the Utah Central Railway. Utah Southern Railroad Engine 5, a Schenectady 4-4-0, was built in 1880 and after consolidation is reported to have been renumbered Utah Central Railway's No. 11. Pictured here as she originally appeared, she stands on the turntable in front of Milford, Utah's sturdy brick roundhouse. (Don Roberts collection, courtesy of Herb Arey)

Close. No.

"ON UNION PACIFIC SYSTEM"

TRAIN PASSING THROUGH RAINBOW CANYON, NEAR CALIENTE, NEVADA

Sold Amount Cle. No. Sold

Originally UP owned three Shays—Nos. 59-61 — and two of them survived on the heavily graded, 5½-mile Tintic Branch in Utah until 1948-49. No. 61, originally an Oregon Short Line engine, was sold to Oregon American Lumber Company.

Don H. Ro

EXTRA 3809 EAST at Lugo, Calif., in 1946 is rolling livestock to the power of four cylinders and 12 drivers. Union Pacific pioneered the 4-6-6-4 type, purchased more of them than any other road. Walter Thrall was running them at the age of 26, and "once in a while I'd lean way out of the cab and watch the fascinating motion of the drivers. . . . I wouldn't have traded for a million dollars."

F. J. Peterson; collection of Donald Duke.

Allston Railroad Photograph

UNION PACIFIC'S 3938 AT CAJON SUMMIT STATION, CAL.

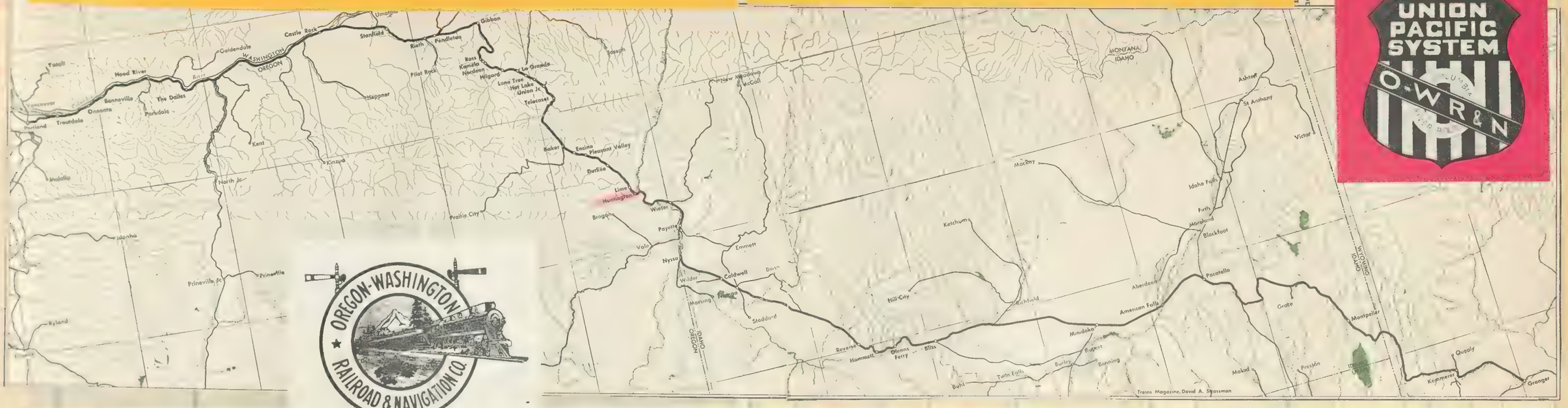
Blt as SPLA&SL #613 by Baldwin 1905, renoed LA&SL 3613 later 6022.

One of the handsome Mountain type, #7867, keeps the scheduled time with #14, eastbound "Pacific Limited"

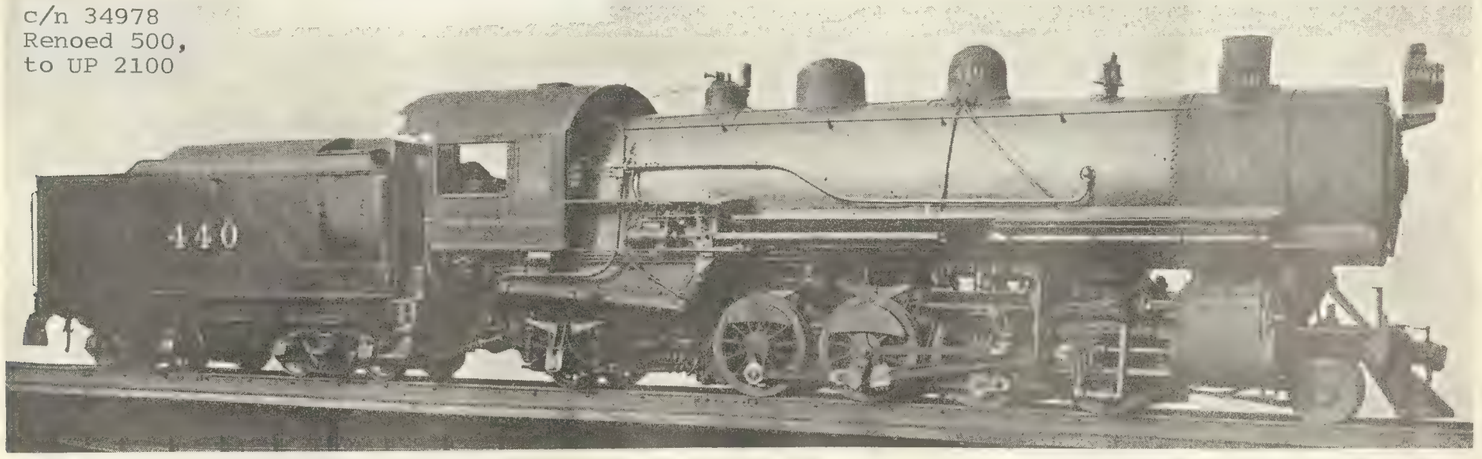
UTAH WESTERN RAILROAD started life as the Salt Lake, Sevier Valley & Pioche Railroad, a narrow gauge line projected by Generals P. E. Connor and E. M. Barnum to run from Salt Lake City to the mining region around Pioche, Nevada. Grading started in 1872, but the company failed and work was suspended in 1873 after some 20 miles of rough grading had been accomplished. Construction was resumed on June 15, 1874, when John W. Young and other Mormon investors from Salt Lake City organized the Utah Western Railroad to take over the franchise of the Salt Lake, Sevier Valley & Pioche. The road was completed from Salt Lake City to Stockton, in Tooele County, Utah, a distance of about 40 miles, early in 1875. The noted Salt Lake photographer, C. R. Savage, took this photo of Engine No. 2, the EDWARD HUNTER, at Point of the Mountain , Utah; Engineer Evan Jones is shown oiling around the 3 foot gauge Mogul while workmen load ballast on flat cars and two combines loaded with passengers stand in the background. In 1881 the Utah & Nevada Railway, owned by the Union Pacific, took over the Utah Western and its four locomotives. The line later became part of the Oregon Short Line & Utah Northern system, controlled by the Union Pacific. (C. R. Savage photo, courtesy of Arthur Petersen)

OREGON WASHINGTON RAILROAD & NAVIGATION

OREGON SHORT LINE



c/n 34978
Renoed 500,
to UP 2100



Oregon Railroad & Navigation freight locomotive No. 440, built by the Baldwin Locomotive Works in 1910.

The original OR&N began business July 1, 1879. It was a consolidation of the Oregon Steamship Company, the Oregon Steam Navigation Company, and the companies owning railroads to overcome the rapids of the Columbia River. At its formation the company acquired 67 miles of railway. By the time engines 45 and 83 were built, this mileage had been increased to 1007.79 (December 31, 1889). In 1940, the Oregon-Washington Railroad & Navigation Company owned 1886.97 miles of road, and yards, sidings, and additional main track took this figure to 2481.40. Mileage owned jointly with other companies totaled 2675.96 in 1940.

Mainstay of UP's North Coast lines was the Oregon-Washington Railroad & Navigation Company, which was organized to take over the Oregon Railroad & Navigation Company, the Oregon & Washington, the Columbia River & Central Oregon, the Ilwaco Railroad, the Des Chutes Railroad, the Lake Creek & Coeur d'Alene, the Oregon Eastern, the Oregon, Washington & Idaho, the Spokane Union Depot, the Umatilla Central, the Malheur Valley, and the North Coast itself.

One engine as an experiment, adopted as standard Harriman 2-8-2 type

Rome 1889

The 83 was part of an order for five (82-86) sturdy Consolidations delivered by New York. Cyls 20x24, dvs 51", TE 25,600# Later noed 1291; 161

Ten wheeler #130 suns herself between assignments at Portland in 1911. Orginal number 45 and later 1709. Blt at Rome 1889

FREEZING WINDS HAMPERED THE MEN of this big Oregon Railroad & Navigation Company wrecking hook as it pulled the derailed cars out of an icy stream near Meacham Creek, Ore. in February of 1903.
Collection of the Library of Congress

Crown Point, in beautiful Columbia River Gorge

221

LOWER CASCADES TERMINAL of the Cascade Railroad Co. was on Washington side of Columbia River. This view, taken about 1862-63, shows the engine house, turntable, and one of first portage engines at left; more modern locomotive in foreground is the **"D. F. BRADFORD."** Unidentified engine with coach, partly obscured by smoke, stands before building that housed coaches and railroad office. (Courtesy of Union Pacific R.R.)

W. A. Anderson

BROUGHT AROUND CAPE HORN BY SAILING VESSEL
This locomotive, the D. F. Bradford, of the Oregon Steam Navigation Co., now the Oregon-Washington Railway & Navigation Co., was built by Danforth, Cooke & Co., at Paterson, N. J., in 1862. After a long ocean trip to the Pacific Coast it was put in service on the Dalles to Celilo portage in 1863. Cars were carried by steamer up the Columbia River until they came to portages, and short rail lines hauled them over the portages around the various rapids.

PORTAGE ROAD POWER. The **J. C. AINSWORTH** served on the Oregon Steam Navigation line between The Dalles and Celilo in the 1860's. (Courtesy of John T. Labbe and D. L. Stearns)

Five Moguls delivered in 1880 by Baldwin, noed 1-5. Renoed 7-11, 1369-1373

"S. G. REED" was early wood-burner operated by Oregon Steam Navigation Co. in the 1870's, later became O.R.&N. Co.'s No. 4. Note the elaborate headlight bracket and fancy brass scroll plate between driving wheels which bore names of builders, Danforth, Cooke & Co. 1865

"J. S. RUCKEL" was a pioneer locomotive operated by Oregon Steam Navigation Co. on portage railroad at the Cascades. Engine was built by Danforth, Cooke & Co. at Patterson, New Jersey, and later became Ore. Ry & Nav Co. No. 3. 1865

Total Accounted for

This little teapot, blt by Porter Bell in 1876, for the narrow gauge Walla Walla & Columbia River as #3 "Columbia". Road to O.S.N. in 1879, to O.R.& N. 1880, s.g. 1883

HANDWRITING ON THE WALL, the newly-laid tracks of the O.R.&N. were destined to send Columbia River steamboats to the bone-yard. Temporary construction spur runs down to boat landing in this scene in early 1880's; engine with "swallow-tail" tender is one of two O.R.&N. acquired from Pennsylvania Railroad. (Courtesy of Union Pacific

DELIVERY BY STEAMBOAT, this picture shows arrival of a small 2-4-0 type locomotive loaded on fore-deck of sternwheeler **"HASSALO"** at a landing on upper Columbia River. Wood scow, left foreground, hauled fuel from wooded areas and was sail-driven by strong winds.

FIRST TRANSCONTINENTAL TRAIN into Northwest on O.R.&N. tracks at The Dalles in 1883. Decorated locomotive, with stuffed cougar on pilot, stands in front of speaker's stand near New Columbia Hotel. Banner on stand reads "To The Atlantic," connection being made over newly-completed Northern Pacific R.R.; locomotive is O.R.&N.'s No. 46. (Courtesy of Union Pacific R.R.)

CABOOSE HOP. Engine 59 of the O.R.&N. displays the white flags indicating an extra train in this photo at Taylor, Ore., in 1908.

23

Eleven delivered by Hinkley 1881

32-36
Baldwin
1882

SNOW BLOCKADE RELIEF TRAIN on the Oregon Ry. & Nav. Co. during the terrible blizzards of 1884-85 posed long enough for photographer to expose his plate west of Hood River. (Courtesy of Union Pacific R.R.)

In this area (at Viento) the westbound "Pacific Express" was snowbound for 21 days, December 19, 1884 to January 7, 1885

223

WEDGE-TYPE SNOWPLOW bolted on pilot of O.R.&N. Eng. 62 was used to clear tracks after blizzards. Four or five engines would be coupled on in rear and entire group roared into packed drifts with wide-open throttles. "Bucking" snow was dangerous as engines would telescope if derailed. Canvas atop tender protected coal supply from flying snow tossed by plow. Photo at The Dalles.

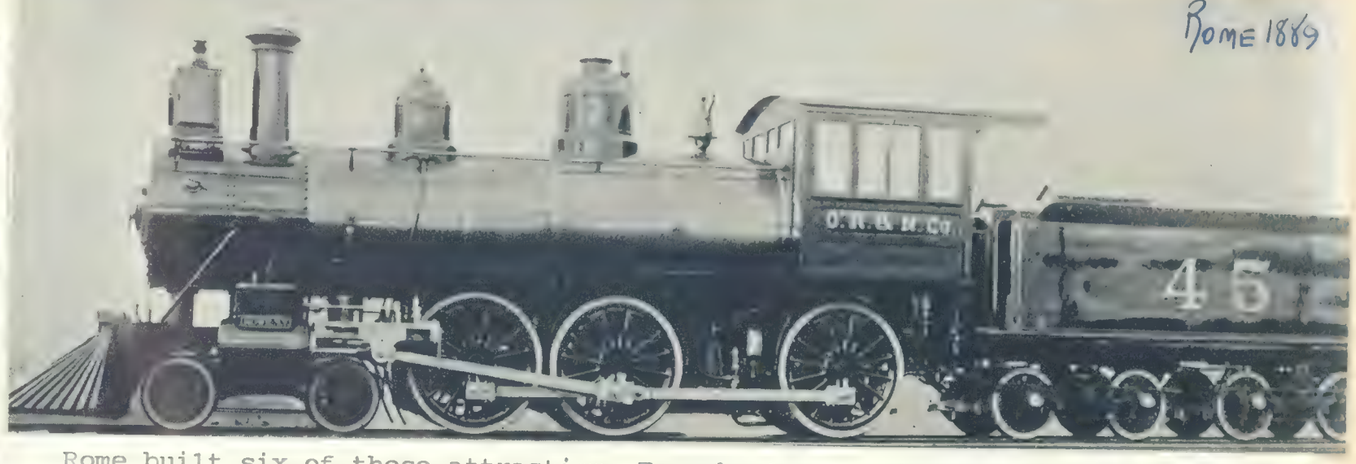
FAMILIAR SIGHT to Pacific Northwest railroaders in winter is ice-encrusted rotary snowplow. Locomotives pushed rotary along while steam from plow's own boiler furnished power to rotate blades and throw snow from tracks. This "spinning wheel" is halted in The Dalles, on the O.R.&N., about 1890 and is the prototype of snow-fighting equipment in use today.

EAST OF LA GRANDE, a pair of coal burners send up a pillar of smoke and a shower of cinders as they shoulder into a stiff climb through sagebrush with early passenger train. (Courtesy of Union Pacific R.R.)

Engine 81
Baldwin 1883
c/n 6829
to U.P.#549
to OR&N #73
to U.P.#1108

Her engineer is relaxed as the little Eight wheeler comes boiling along with a "varnish" consist in the spirit of early NorthWest railroading.

DRIFTING SAND blown by "gentle zephyrs" along Columbia River caused this double-header to pile up on O.R.&N. east of The Dalles about 1890. "Blow sand" was a constant source of trouble along this section. (Courtesy of Union Pacific R.R.)



Rome 1869

Rome built six of these attractive Ten wheelers noed 45-50. With the rear driver under the cab she probably rode like a springless wagon and after the wedges worked loose would buck like a bronco. Later noed 1494, 130, 1709.

LENDING A HAND, the O.R.&N.'s No. 32 helps a cap-stacked eight-wheeler drag a string of passenger cars up the incline from the ferry slip at Portland; sternwheeler backing away from landing is the "**WILLAMETTE CHIEF.**" (Courtesy of H. H. Arey)

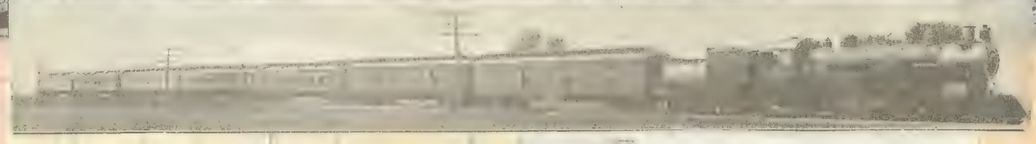
JETS OF STEAM FROM BLOWING WHISTLE hang suspended in air as the Portland-Chicago train wheels past mill of Bridal Veil Lumbering Company. The year is about 1907; engine is dashing ten-wheeler 134. (Courtesy of Union Pacific R.R.)

Org # OR&N 49

Tragedy on the OWRR&N at Celilo. This head-on between two passenger trains occurred December 1, 1921 on the Eastbound track in double track territory. Involved was Eastbound Trn #12 with Eng 3202 [8 cars] and Extra 3211, which was Trn #17 moving as an extra, with 11 cars. Seven people died with 73 injured

224

ERUPTING A FOG OF COAL SMOKE, O.R.&N. 81 pulls away from the Hood River station, heading east. Building at left is depot of Mt. Hood Railroad. (Angelus Studio photo)



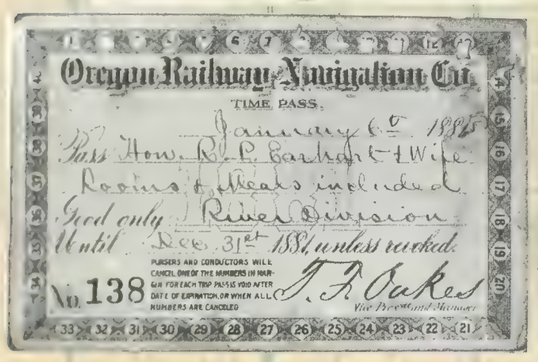
Orig # 145, (see opposite page)

OR&N 190-193 c/n 30035 Schen 1904

To OWRR&N #190, U P #3204 The first Pacifics on the OR&N

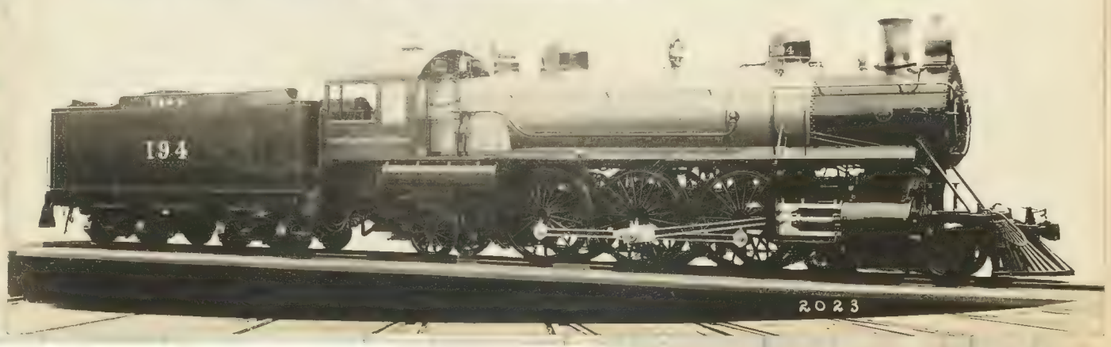
O. W. R. & N. train pulling out of Hood River with four loaded refrigerators on the head end

OKM

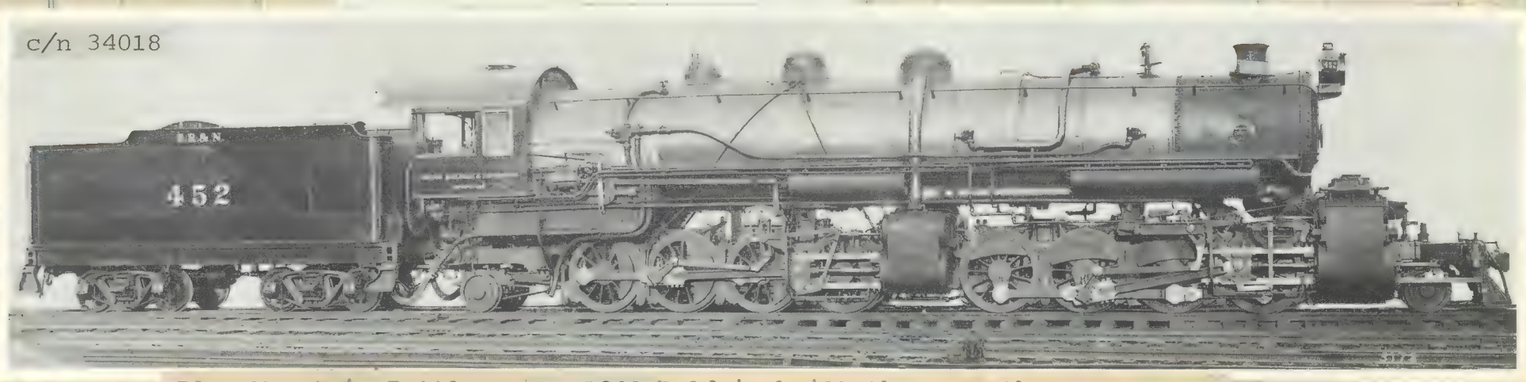

Oregon Railway & Navigation Co.
TIME PASS.
January 6th 1885
Pass Hon. R. P. Earhart & Wife
Rooms & Meals included.
Good only River Division
Until Dec. 31st 1885 unless revoked.
No. 138
T. R. Oakes
Vice President & Manager

UMATILLA CENTRAL RAILROAD, shownig Engr. "Dad" Moon at the throttle of first train into Pilot Rock, Oregon, Dec. 16, 1907. (Moorhouse photo, University of Oregon)

The second group of Pacifics were delivered by Baldwin in 1905. Compounds with 17&28x28 cyls, dvs 77" T E 28.266#
Later OWR&N #194, then UP 3200. 194-196 c/n 25687



c/n 34018



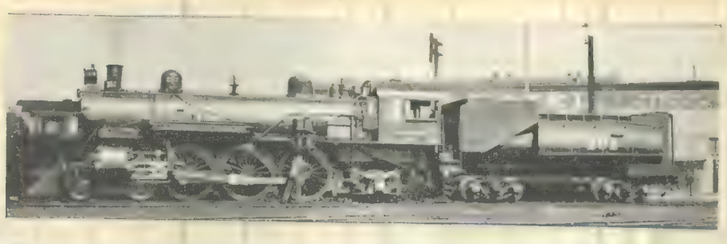
Blue Mountain Battler. In 1909 Baldwin built three of these monsters noed 450-452 with cyls 26&40x30, 57" dvs T F 94,880. In 1911 noed OWR&N 702 then U P 3800 in 1915.

225

O.R.& N. depot at Bonneville

Albert Farrow

SWITCHING ON WHARFS AT SEATTLE, WASH.
This locomotive is No. 2 of the East Waterway Dock & Wharf Co., and was formerly 4901 of the Oregon-Washington R. R. & Navigation Co.



S AT

Blt as P&LE #227 by Pgh 1902 to OWR&N #43 in 1911, renoed 4901, to EWD&W.

201-207
Baldwin 1910
to 3211-3217

One of the beautiful "Harriman" Atlantics, #96, gets some attention from her hogger before lvng Portland with Trn#8. Fifteen were built (88-102) in 1911 by Baldwin

SMOKY SYMPHONY at LaGrande as bells toll and safety valves howl to the accompaniment of pulsating air pumps and roaring blowers. Diamond-stacked No. 761, at left, carries white flags to indicate she is running as an extra train, one without timetable schedule. Behind tank of Engine 383 can be seen incline tracks leading up to bunkers of coaling chutes. (Courtesy of H H. Arey)

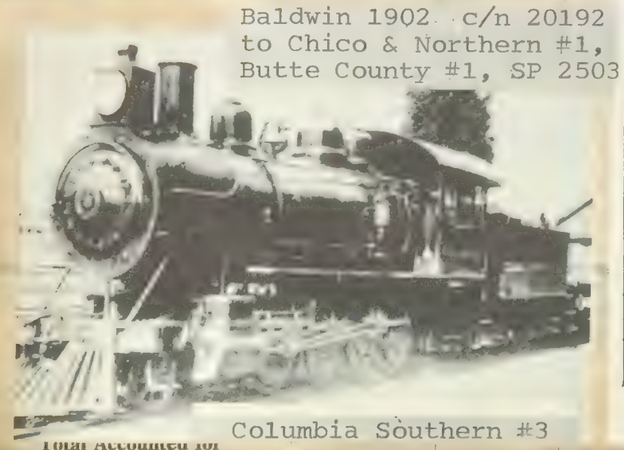
↗The Southern Pacific and the OWR&N sometimes interchanged engines in the early 1900's. This is an SP train at Albany, Ore., on SP tracks with an SP crew, but the engine is an OWR&N 4-4-2. No. 19 was a local from Portland to Ashland, was at Albany in time for a meal stop.

Another in the ever-increasing parade of scrapped steam locomotives is Union Pacific No. 1734, built by Cooke in 1895 for the Oregon Railroad & Navigation Company as No. 149. It later became Oregon-Washington Railroad & Navigation No. 171 before being assigned its final number — 1734 — on the Union Pacific. This photograph was made at Umatilla, Oregon in June of 1940 by Fred Stindt. Engine was dismantled at Yakima, Washington in July of 1946.

Photo from Underwood & Underwood
Collision on the Oregon-Washington Near Celilo, Oregon

OKM

Baldwin 1902 c/n 20192
to Chico & Northern #1,
Butte County #1, SP 2503



Columbia Southern #3

THE DOUBLE-LIFT BRIDGE AT PORTLAND OREGON
End view of bridge showing flared ends to the railway and the approach to the upper level.

POLISHED BOILER JACKET and straight-shot stack grace O.R.&N.'s No. 85, ready to leave Pendleton with a passenger train; hand-fired coal burner was a speedy eight-wheeler. (Oregon Collection, University of Oregon)

Blt as U.P. #608 by
Rhode Is 1890 c/n 2449
To OR&N 85 in 1894.

Crooked River Gorge

DEATH RODE THE RAILS when this 4-6-0 plunged through a flood-weakened bridge over Willow Creek on Heppner Branch, Union Pacific. Engineer Sam Hansen was killed, body pinned under engine.
(Courtesy Ben W. Griffiths)

The overnight "pool" train from Portland nears Seattle with a heavy consist

Train No. 401.
Pullman Sleeping Cars. Portland to Tacoma—12-Section, Drawing-room. Oakland to Seattle (So. Pac. No. 20)—10-Section, 2 Compartments, 1 Drawing-room. (Air-Conditioned.) Portland to Seattle—12-Section, Drawing-room.
Tourist Sleeping Cars. Oakland to Seattle (So Pac No. 20). (Air-Conditioned.) Kansas City to Seattle (U. P. No. 21).
Coaches .....Portland to Tacoma-Seattle. (Air-Conditioned.)

2510, one of the Mikes blt by Baldwin in 1913 for the O S L, moves tonnage south of Black River Tower-Seattle

227

UP's Portland Rose some years ago in the magnificently green gorge of the Columbia.

A. J. Baker, Portland, Ore.

No. 17—Portland Rose. Daily. Condensed Tables C, D and G.	
Club Observation Car	Chicago to Portland (barber, valet and bath; buffet and soda fountain).
Standard Sleeping Cars	Chicago to Portland—8-Sections, Drawing-room, Compartments.
(1933)	Chicago to Portland—12-Sections, D. R. *Chicago to West Yellowstone—10-Sections, Compartments, Drawing-room (No. 35, Pocatello to West Yellowstone). Operated only during Yellowstone travel season.*
	Salt Lake City to Spokane — 14-Sections (No. 41 to Pocatello; No. 17-112-12 beyond).
Tourist Sleeping Car	Chicago to Portland—16-Sections.
Chair Car or Coach Service	Chicago, Omaha and Denver to Portland. Portland to Seattle (No. 561).
Dining Car	Serving all meals. A la carte service; also club breakfasts, 50c. to $1.00; table d'hote luncheons, 75c. and $1.00; table d'hote dinners, $1.00 and $1.25.

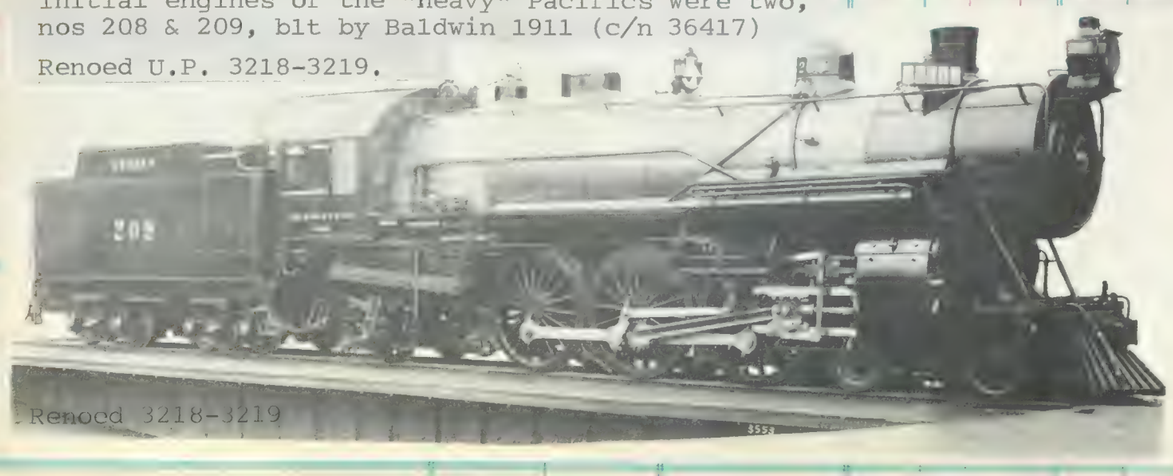
Seven Pacifics ordered by the OR&N were delivered by Baldwin in 1911 noed 200-206, then OWRR&N 200-206, last UP 3211-3217. Last of the "lite" Harriman 4-6-2's. #3217 had c/n 35957

Train No. 458.	
Pullman Sleeping Cars	Seattle to Oakland—10-Section, 2 Compartments, Drawing-room, via So. Pac. No. 17 from Seattle. Seattle to Los Angeles—10-Section, 2 Compartment, 2 Drawing-room (So. Pac. No. 17).
Observation Parlor Car, Dining Car and Coaches	Seattle to Portland.

One of the Sports Model 4-8-2's (#7018) smokes up the Milwaukee → wire as she gets a wheel on Trn 458, the afternoon Portland "pool", south of Seattle. Note lack of train number in indicator board.

Initial engines of the "heavy" Pacifics were two, nos 208 & 209, blt by Baldwin 1911 (c/n 36417)

Renoed U.P. 3218-3219.



Pacific 3225 [blt as OWRR&N 215 by Brooks in 1913] with a Portland "pool" train relaxes at Argo interlocking Seattle

228

OWRR+N

A [illegible] 2-8-8-0 helper steams on the wye at Hilgard, Ore.

Climbing 3136 feet within 55½ miles on the west slope of the Blue Mountains, the Idahoan rolls through Meacham Creek Canyon at 35 miles per hour, her 10 standard cars in the custody of Mountain 7021 and Northern 820.

Travel by Train

Make the most of your time. See more in less time and in greater comfort. Add days of enjoyment to your vacation or business trips.

Train travel is clean, restful and speedy.

Go via Union Pacific.

UNION PACIFIC

OWRR+N

Near Pleasant Valley, No. 3530 (above) is on the point of 64-car time freight 655, doing 20 mph with helper 3551 on the rear.

Union Pacific 3525, 2-8-8-0 Type, with a westward extra in the Blue Mountains near Meacham, Oregon on the Second Subdivision of the Oregon Division. Photo by R. H. Kindig, U. S. Army.

OWRR+N

Union Pacific's 2-8-8-0's were never accused of being extraordinarily handsome locomotives — but once they were spliced into a drag west out of Hilgard no one sympathetic to steam noticed as the articulateds raised Cain like this.

HELPERS OUT OF HILGARD

One of the early Challengers, the 3829, fights her way west into the Blue Mountains with the 65 cars of an extra about 10 miles out of La Grande. Beyond the curve are a brace of 2-8-8-0's keeping the speed at a steady 15 miles per hour.

Bull Moose 3532 takes a westbound extra out of LaGrande

No.	Sold	Amount	Cloe. No.	Sold	Amount

IDAHO DIVISION.

		MILES
Oregon Short Line & Utah Northern Ry.	Granger to Huntington	541.3
	Shoshone to Ketchum	69.4
	Nampa to Boise City	19.0
	Ogden to McCamman	111.1
	Cache Junction to Preston	42.2
	Pocatello to Silver Bow	255.5
Total Idaho Division		1,038.5

230

Amount

The Portland Rose
A TRIUMPH IN TRAIN COMFORT

OREGON SHORT LINE RAILROAD

The Snake River is a confusing mass of dams, millraces, and sluices at American Falls, Ida., 25 miles west of Pocatello. The little town of some 1500 population is known as "the Power City" because the storage reservoir of the American Falls Irrigation Project generates 27,000 kilowatt-hours of electricity. Water from the reservoir also irrigates a large wheat-raising territory. Here the UP's Portland Rose follows engine 805 over the American Falls bridge. The big dam can be seen in the background.

On the Idaho lines the 4-8-4's did some spectacular running every day as they whirled their trains between American Falls and Shoshone, eighty-three miles, in less than one hour's running time. The heavy standard weight Portland Rose likewise did some mighty fast traveling behind a wound-up 800 and on many instances were known to have passed an automobile doing 90 mph on the paralleling highway, like it was standing still.

★ **NO. 17—PORTLAND ROSE—DAILY**

Registered Nurse—Stewardess Service without Charge.

Cars from Chicago run via C. & N. W. to Omaha; thence U. P.

Club Observation Car	Chicago to Portland (barber, valet, buffet, soda-fountain; radio).
Standard Sleeping Cars	Chicago to Portland—8 Sections, Compts., D. R. Chicago to Portland—12 Sections, D. R.
Sleeping Cars open at Chicago 9:30 p. m.	*Chicago to West Yellowstone—10 Sections, Compartments, D. R. (No. 35, Pocatello to West Yellowstone). (Only during Yellowstone season, June 20 to Sept. 13).* *West Yellowstone to Portland—12 Sections, D. R. (During Yellowstone season, June 20 to Sept. 13). (Requires Car to Car change at Pocatello).* Denver to Portland—12 Sections, Drawing-room, (No. 37 to Green River).
Dining Car	Meal service.

1937

IN PRE-ATOMIC DAYS the Oregon Short Line depot at Arco, Idaho, presented this quiet scene. Engine 525, a 4-6-0 with an auxiliary water tank, heads up a mixed train before the wooden station, while the windmill at left pumps the station's water supply. The scenery is typical of the arid portions of the West, with sagebrush slopes running up to the rimrock.
(Courtesy of Arthur Petersen)

Pushers on Medbury Hill near Reverse, Ida.

On the Utah & Northern - watercolor by Mike Pearsall

Trn #35 pauses at Dillon, Montana

588-592
c/n 23843

Oregon Short Line #592, 1904, 0-6-0 type. Baldwin

3134-3138 Baldwin 1919
c/n 51277

P-69 #3136 is shown at Pocatello, Idaho on July 10, 1947. The P-69 referring to Pacific with 69" drivers. This is one of the engines with smaller drivers for use on heavier grades. The trailing truck is of the early cast steel design with the rear support much different than the more modern Delta. This slower engine still received the two-tone gray colors.

Scenes near Glenns Ferry Hole, Ida.

The enginehouse at Pocatello was the largest on the U. P. system-53 stalls.

232

Crossing the Snake just east of Huntington

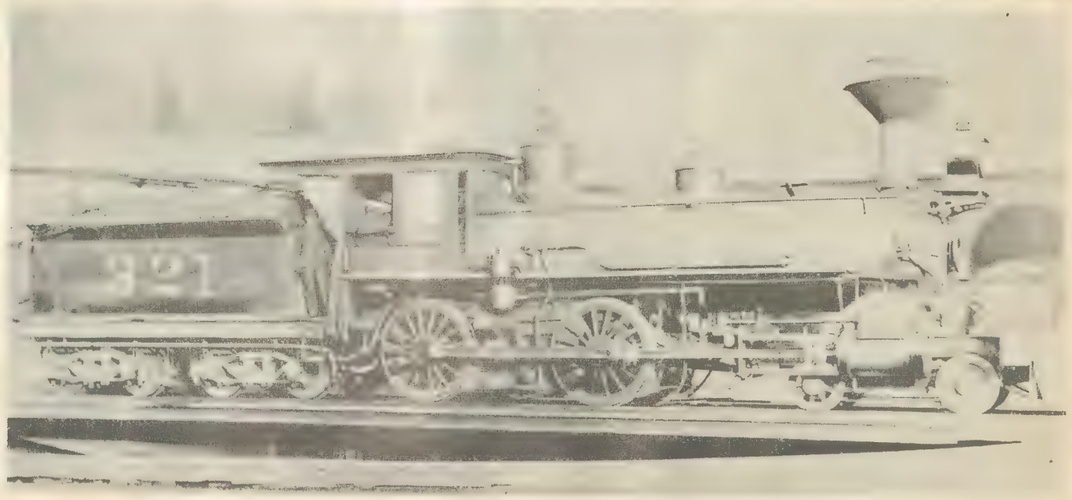
POCATELLO, IDAHO — Union Pacific

Most of the people appearing in this picture of Pocatello about 1885 appear to be railroad employees. Pocatello is 714 miles east of Portland and has always been an important stop on the U. P.'s main line. *U. P.*

Ten-wheelers on Oregon Short Line train in eastern Idaho in the early 1900's.

644 Cooke 1891
630 R.I. 1891

STONE, MONT.



In 1887 Grant built ten 4-4-0's for the Utah & Northern noed 751-760, renoed O.S.L. 315-324. The 321 [c/n 1709] later went to SPdeM #152.

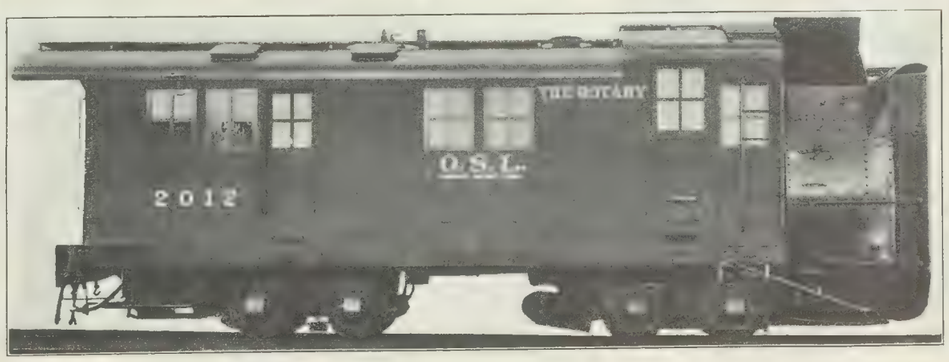


Fig. 164—Rotary Snow Plow Locomotive. Built for Union Pacific Equipment Association by the American Locomotive Company. 1921

Gage	4 ft. 8½ in.	Heating Surface, Tubes	1,746 sq. ft.
Cylinders	18 in. x 26 in.	Heating Surface, Firebox	138 sq. ft.
Steam Pressure	190 lbs.	Heating Surface, Total	1,884 sq. ft.
Truck Wheel Base	4 ft. 6 in.	Grate Area	32 sq. ft.
Total Wheel Base	22 ft.	Total Weight	203,600 lbs.
Width of Cut	10 ft.	Fuel	Soft coal

WHEN Edward Henry Harriman ruled the Oregon Short Line Railroad at the turn of the century he surveyed the line to Portland from his own luxurious private car *Arden*, built by Pullman in 1899 and named after his palace on the Hudson River north of New York City. The rest of the OSL brass rode in car 1903 on the rear of train No. 2, the *Chicago-Portland Special*. In one man's opinion, old "E. H." came out second best. Few cars ever built match the dignity, grace, and beauty of No. 1903, a Pullman Palace Car product of 1903.

233

IN THE DRINK. Consolidation type freight locomotive took a header into river near Pendleton in early 1900's; second engine involved in wreck is inspected by spectators on bank in right background. (Oregon Collection. Univer-

R. H. Kindig

UNION PACIFIC'S ENGINE 5310 & 7014 DOUBLE HEADING OUT OF BLISS, IDAHO, WITH HEAVY FREIGHT DRAG.

Lvng Bliss, Idaho
with 70 cars

U. P. 5306, 2-10-2 Type, crossing the Snake River east of Huntington, Oregon on the Fourth Subdivision of the Idaho Division with a westward extra; 3215 tons, 74 cars. Photo by R. H. Kindig, U. S. Army.

First section of the westbound Pacific Limited gets under way. H. R. Griffiths.

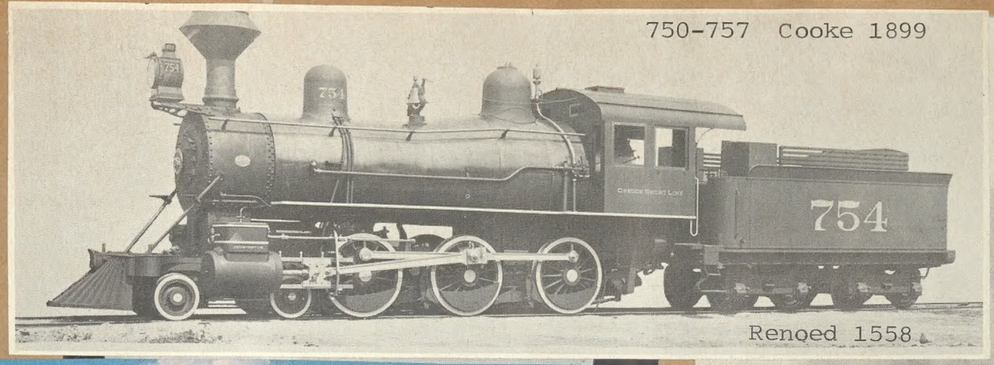
BOISE

In July the rugged, forested country is devoid of snow and the Yellowstone Special needs two engines to lift its seven cars up the grade out of Warm River Canyon.

Henry R. Griffiths.

Henry R. Griffiths Jr., Box 1162, Boise, Ida

The Portland Rose — Union Pacific train 18 with 18 cars leaves Boise, Ida., behind 4-8-4 No. 823.



750-757 Cooke 1899

Rened 1558

OSL
234

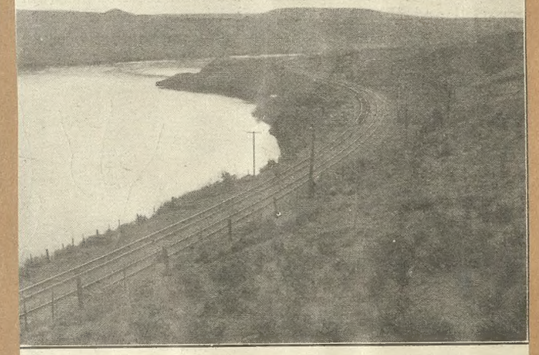
Pacific Limited—Another fine daily train, with convenient morning departure from both terminals. No extra fare.

The Northerns were so good at running up the mountains that diesel salesmen never hid the fact that when discussing their products with UP, they talked economy because they knew the diesels couldn't better the performance of the 4-8-4's.

Henry R. Griffiths Jr.

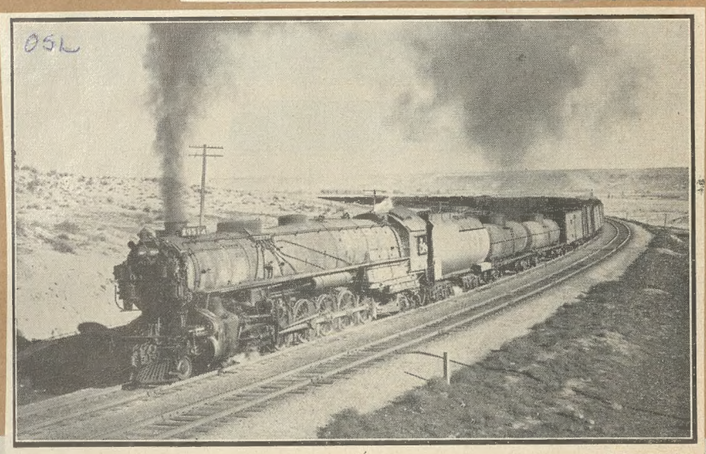
CHALLENGER 3938 leaves Boise, Ida., with the 18-car Pacific Limited on November 4, 1945,

"GLENNS FERRY HALE" 1973



Along the Snake River, East of Glenns Ferry

OSL

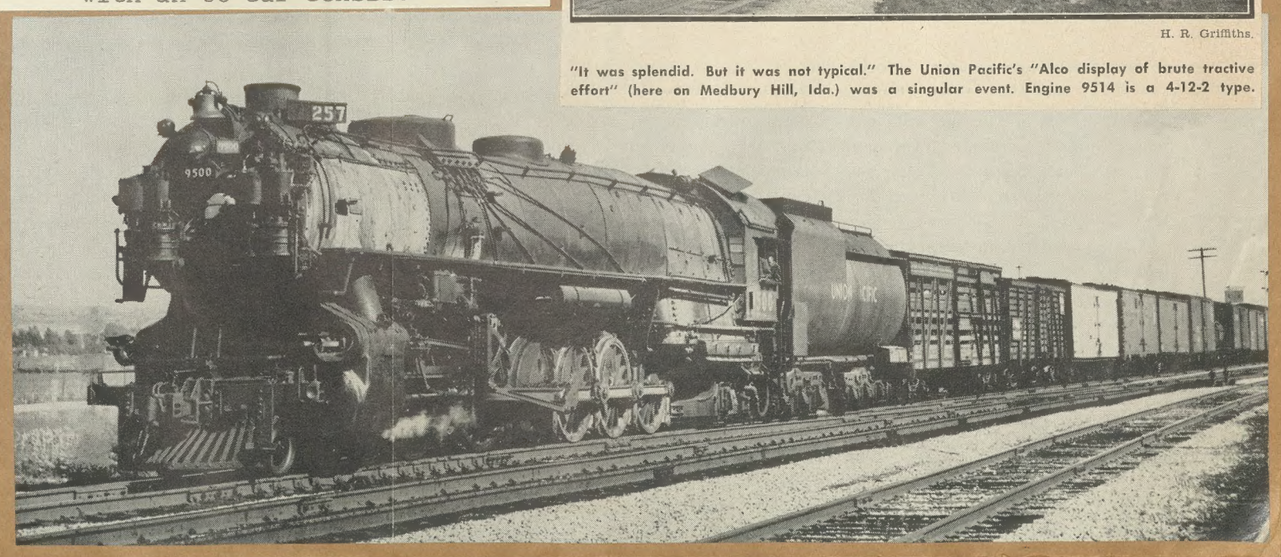


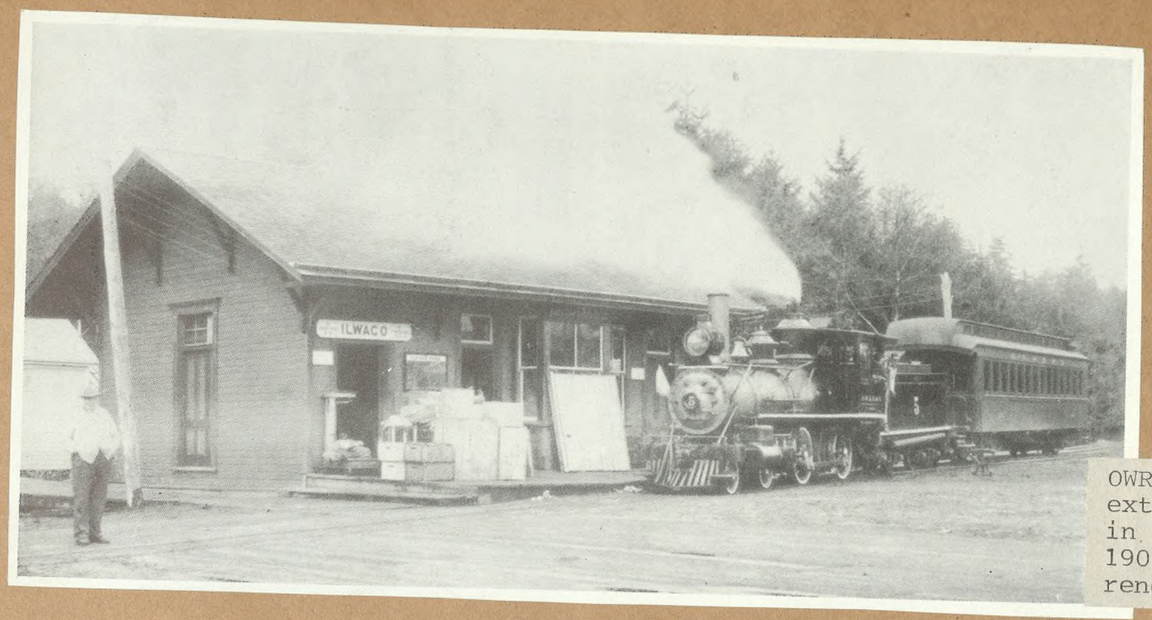
H. R. Griffiths.

"It was splendid. But it was not typical." The Union Pacific's "Alco display of brute tractive effort" (here on Medbury Hill, Ida.) was a singular event. Engine 9514 is a 4-12-2 type.

#257 ready to depart Montpelier, Ida with an 80 car consist

Coal dock at Hammett

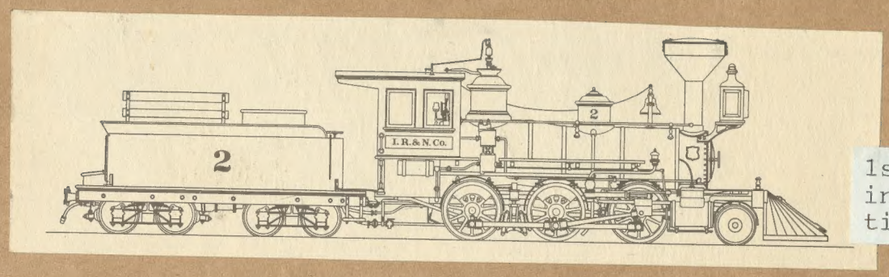




OWRR&N #5 on a single car Passenger extra. Built by Baldwin [c/n 4956] in 1880 as So Pac Coast #9. Rebl t 1905 and sold to IR&N in 1907. Was renoed N3, 3 Retired in 1931

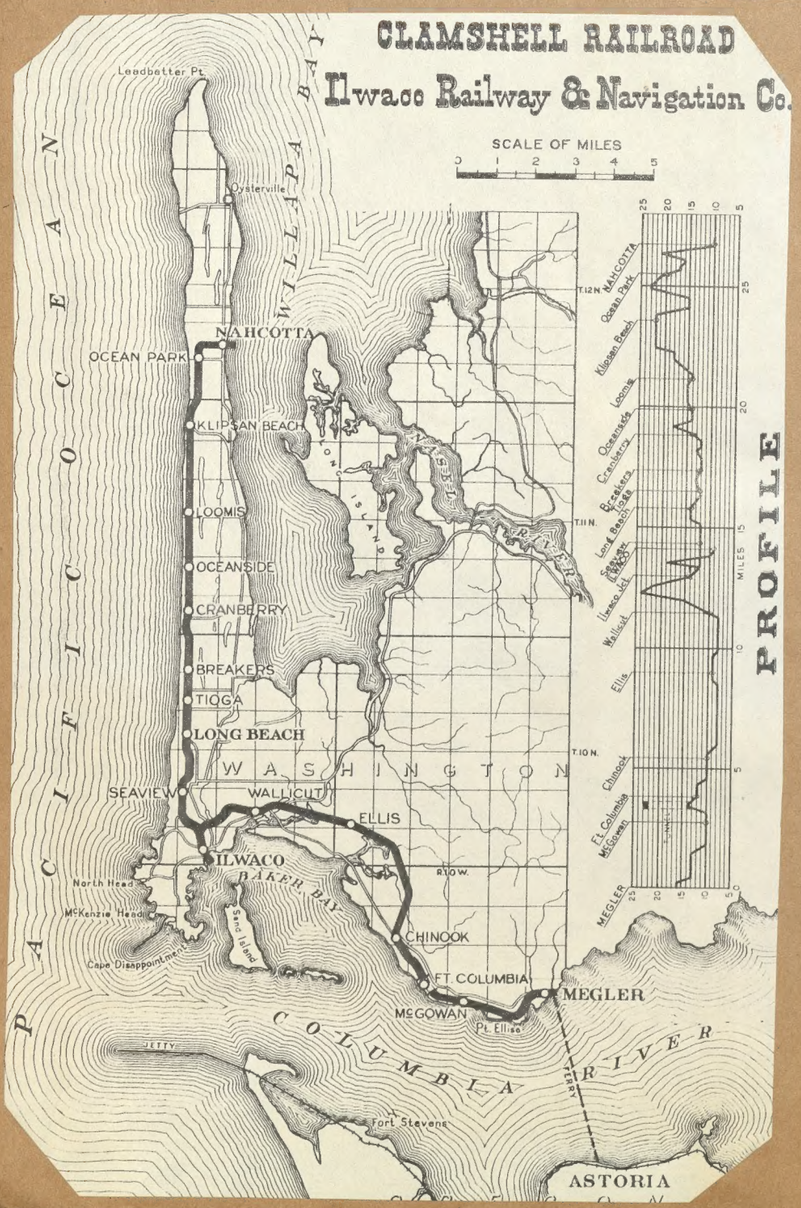
ILWACO RAILWAY & NAVIGATION CO. crews had Engine No. 4 all slicked up when this photo was taken on the long wharf at Ilwaco, Washington. Slim-gauge diamond-stacker was burning wood at this time. She had come to the "Clamshell" from Portland & Willamette Valley Ry., who in turn had acquired her from the Utah & Northern, where she had been number 19, later U.P. 23. Note logs loaded on standard flat cars. (Photo by Ford, Ilwaco, Wn.)

#4 built in 1880 by Baldwin c/n 5121 Renoed N2, 2

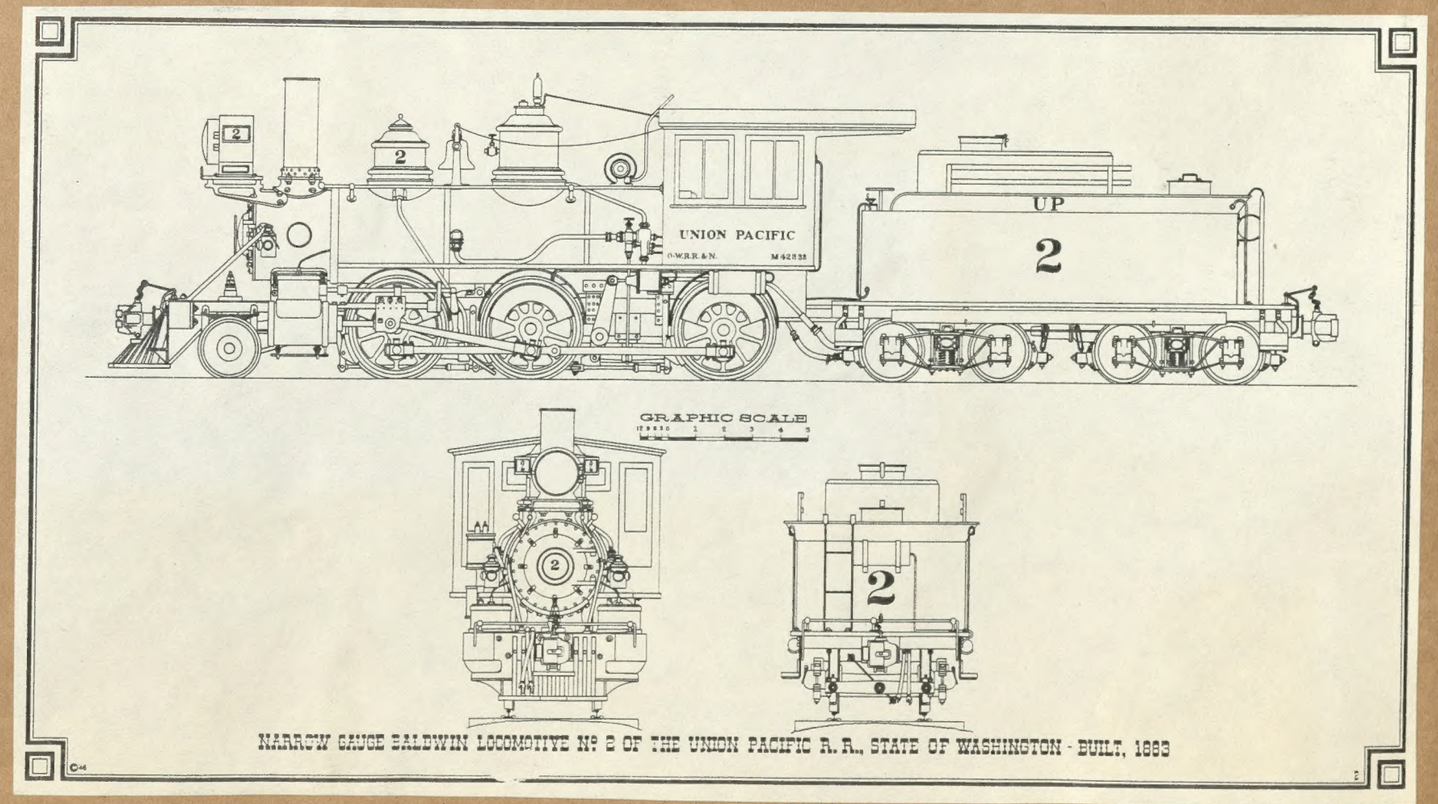


1st #2 blt by Porter in 1890 c/n 1155. Retired in 1908

BELCHING BLACK SMOKE, an Ilwaco Ry. & Nav. Co. engine laboriously drags a long string of passenger coaches away from the dock at Megler, bound for Ilwaco and Nahcotta. A second section is still loading at the right of the depot and warehouse; steamer that has brought loads of vacationers down from Portland is hidden by the clouds of smoke. (Courtesy of Union Pacific R.R.)



#4 built in 1880 by Baldwin c/n 5121 Renoed N2, 2



NARROW GAUGE BALDWIN LOCOMOTIVE Nº 2 OF THE UNION PACIFIC R. R., STATE OF WASHINGTON - BUILT, 1883

Clifford Peake; collection of Thornton Waite.

YELLOWSTONE EXPRESS—**Union Pacific train 46—departs West Yellowstone, Mont., for Salt Lake City on an afternoon in the 1930's.**

Through standard Pullman daily between Chicago and West Yellowstone in the Portland Rose, trains 17 and 18, starting June 18 from Chicago. Also standard Pullman service daily to and from Chicago in the Pacific Limited, trains 21 and 14, with car-to-car change at Pocatello.

Splendid daily service in standard Pullmans to and from Portland and other Pacific Northwest cities in both the Portland Rose and the Pacific Limited, with car-to-car change at Pocatello.

Double daily service between Salt Lake City, Ogden and West Yellowstone; connects with trains from Los Angeles, San Francisco and other western cities; and with trains from Chicago, Omaha, St. Louis, Kansas City and the East.

THE SHANNON CONVENTION

One of the most unusual strikes in railroad history took place on the Oregon Railway & Navigation Company in the late 1880's and is embalmed in memory as the "Shannon Convention." The trouble all began when Supt. Cal W. Johnson departed for a vacation in California, leaving Mr. D. W. C. Perry in the post of Acting Superintendent. Perry set out to blaze a name for himself and the fire he kindled left a glow for many years. One of his first official acts was to attempt a wholesale rejuvenation of the O.R.&N. lines. He cut the wages of all operating train and engine crews 25%, eliminated about one-third of the operating personnel, and extended the length of the runs to be made by the road crews.

The O.R.&N. crews responded in a manner Perry never had expected. From the wilderness of the Blue Mountains, from the branch lines in Washington, from every place where the O.R.&N. turned a wheel, the crews deserted their jobs and began to converge on the terminal at Albina. Solid trains of cabooses rolled down the Columbia Gorge as the men headed for Portland to join in protest.

Headquarters for the strikers was set up in a hall over Jack Shannon's saloon in Albina and a locomotive engineer, Bob Hunter, was elected to head a committee representing the employees.

Jack Shannon was a former O.R.&N. conductor and his saloon was a favored spot with the "rails." To facilitate the speedy delivery of liquid refreshment to the thirsty members in the hall overhead a chute was rigged through the ceiling and a cow bell tied to a cord could be jangled to call for service. No violence marked the "strike" and for the only time in history practically all of the road's operating crews enjoyed a grand and glorious reunion.

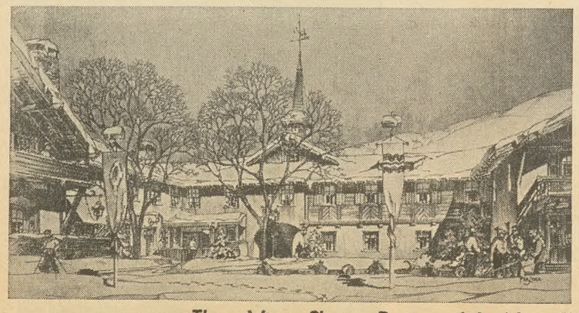
Desperate over the turn of affairs, Acting Superintendent Perry sent a frantic telegram recalling Supt. Johnson, then sent a message from his Portland office to the strikers in Albina, across the Willamette River, requesting a meeting with the strike committee. That worthy body replied that, inasmuch as the fare on the Willamette ferry cost fifteen cents, it would be cheaper for Perry to come to them. Reluctantly, the Acting Super presented himself to the committee in session over Shannon's saloon and listened to the counter-proposal voiced by Engineer Bob Hunter.

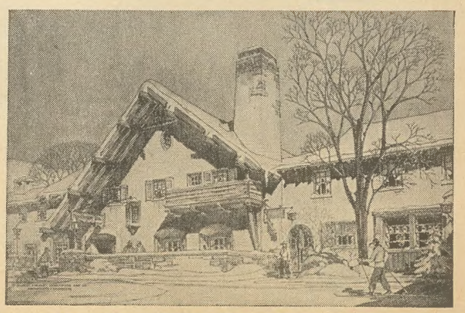
The demands as set forth by the men were that the terminals of the freight runs remain at their former locations and that, instead of a 25% reduction in wages, the men be granted a 25% increase. Perry stalked huffily back to the ferry and the freight blockade continued to grow.

Meanwhile, a special on the Southern Pacific was blasting north over the Siskiyous, rushing Supt. Johnson back to Portland. When he arrived there he immediately granted the men's request and the satisfied "strikers" were deadheaded back to their far-flung terminals to resume their duties. History does not record the fate of the ambitious D. W. C. Perry, but the happy memories of the "Shannon Convention" never faded among the engineers, conductors, firemen, and brakemen who had gathered in Jack Shannon's saloon to defend their rights and partake of the cup that cheers.

SUN VALLEY

Pendleton Roundup for 1938
Pendleton, Oregon, September 15-16-17





These Views Show a Portion of the New Challenger Inn at Sun Valley, Idaho

Sun Valley Winter Sports Season
Opens December 21 at Sun Valley Lodge and Challenger Inn
Ask any Union Pacific agent or representative for information about Sun Valley.

F. RAY McKNIGHT
8835 S.W. Hazelvern Way
Portland, OR 97223

NOTE..Due to weakness in spline, please store book flat